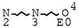
```
=> FILE REG
FILE 'REGISTRY' ENTERED AT 15:06:49 ON 23 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2010 American Chemical Society (ACS)


=> DISPLAY HISTORY FULL L1-

     FILE 'HCA' ENTERED AT 11:43:49 ON 23 APR 2010
L1         16889 SEA SMITH D?/AU
L2         55459 SEA NITRIC#/TI AND OXIDE#/TI
L3            53 SEA L1 AND L2
L4        260698 SEA STABIL?/TI
L5             1 SEA L3 AND L4
                 SEL RN

     FILE 'REGISTRY' ENTERED AT 11:46:03 ON 23 APR 2010
L6            14 SEA (10102-43-9/BI OR 113-21-3/BI OR 126-44-3/BI OR
                 E C9 H19 N5 O4 . NA/MF
L7             1 SEA "C9 H19 N5 O4 . NA"/MF
                 E DIAZENIUMDIOLATE
L8             2 SEA DIAZENIUMDIOLATE/BI
L9             2 SEA DIAZENIUMDIOL/BI

     FILE 'LREGISTRY' ENTERED AT 11:51:38 ON 23 APR 2010
L10              STR

     FILE 'REGISTRY' ENTERED AT 12:04:24 ON 23 APR 2010
L11           50 SEA SSS SAM L10
L12        21596 SEA SSS FUL L10
                 SAV TEM L12 MAR753/A

     FILE 'LREGISTRY' ENTERED AT 12:06:32 ON 23 APR 2010
L13              STR
L14              STR

     FILE 'REGISTRY' ENTERED AT 12:26:14 ON 23 APR 2010
L15           50 SEA SUB=L12 SSS SAM L13 OR L14
L16         1329 SEA SUB=L12 SSS FUL L13 OR L14
                 SAV L16 MAR573A/A
                 E NITRIC OXIDE/CN
L17            1 SEA "NITRIC OXIDE"/CN
L18          545 SEA (N (L) O)/ELS (L) 2/ELC.SUB

     FILE 'HCA' ENTERED AT 12:33:54 ON 23 APR 2010
L19         7156 SEA L17/P OR L18/P

     FILE 'LCA' ENTERED AT 12:34:04 ON 23 APR 2010
L20           56 SEA (PRODUC? OR PROD# OR GENERAT? OR MANUF? OR MFR# OR
                 CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE#
```

```
                OR MAKING# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR
                PREP#)(3A)((NITRIC# OR NITROUS# OR NITROGEN# OR N)(A)(OXIDE
                # OR MONOXIDE# OR DIOXIDE# OR TRIOXIDE# OR TETRAOXIDE# OR
                TETROXIDE#))
L21           0 SEA (PRODUC? OR PROD# OR GENERAT? OR MANUF? OR MFR# OR
                CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE#
                OR MAKING# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR
                PREP#)(3A)((NITRIC# OR NITROUS# OR NITROGEN# OR N)(A)(PENTO
                XIDE# OR PENTAOXIDE#))
L22          43 SEA (PRODUC? OR PROD# OR GENERAT? OR MANUF? OR MFR# OR
                CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE#
                OR MAKING# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR
                PREP#)(2A)(NOX OR NO2 OR NO4 OR NO5 OR N2O OR N2O2 OR N2O3
                OR N2O4 OR N2O5 OR N3O OR N3O2 OR N3O3 OR N3O4 OR N3O5)
L23           0 SEA (PRODUC? OR PROD# OR GENERAT? OR MANUF? OR MFR# OR
                CREAT? OR FORM## OR FORMING# OR FORMAT? OR MAKE# OR MADE#
                OR MAKING# OR FABRICAT? OR SYNTHESI? OR PREPAR? OR
                PREP#)(2A)(N4O OR N4O2 OR N4O3 OR N4O4 OR N4O5 OR N5O OR
                N5O2 OR N5O3 OR N5O4 OR N5O5)

     FILE 'HCA' ENTERED AT 13:53:59 ON 23 APR 2010
L24      288268 SEA (ION OR IONS OR IONIC? OR CATION? OR ANION?)(2A)(EXCHAN
                G? OR INTERCHANG?)
L25       76352 SEA L20 OR L21 OR L22 OR L23
L26         675 SEA (L19 OR L25) AND L24
L27           1 SEA L26 AND L5

     FILE 'REGISTRY' ENTERED AT 13:59:09 ON 23 APR 2010
L28           1 SEA 113-21-3
L29           1 SEA 126-44-3
L30           1 SEA 14265-44-2
L31           1 SEA 9000-11-7
L32           1 SEA 9003-53-6
L33           1 SEA 9004-34-6
L34           1 SEA 9012-76-4
L35         373 SEA DOWEX#
L36           1 SEA L35 AND L6

     FILE 'HCA' ENTERED AT 14:00:14 ON 23 APR 2010
L37           2 SEA L36
L38      239076 SEA L35 OR DOWEX#
L39           1 SEA L26 AND L37
L40          25 SEA L26 AND L38
L41       64445 SEA ANION?(2A)(EXCHANG? OR INTERCHANG?)
L42           5 SEA L40 AND L41
L43         153 SEA L26 AND L41
L44          44 SEA L43 AND L19

     FILE 'REGISTRY' ENTERED AT 14:06:04 ON 23 APR 2010
                E ASCORBATE/CN
L45           1 SEA ASCORBATE/CN
                E NITRITE/CN
```

```
L46           1 SEA NITRITE/CN

     FILE 'HCA' ENTERED AT 14:06:47 ON 23 APR 2010
L47       39929 SEA L45 OR ASCORBATE#
L48       91467 SEA L46 OR NITRITE#
L49      114076 SEA L28 OR LACTATE#
L50           3 SEA L40 AND (L47 OR L48 OR L49)
L51          39 SEA L43 AND (L47 OR L48 OR L49)
L52          16 SEA L44 AND (L47 OR L48 OR L49)
L53      120113 SEA L17
L54        3425 SEA L17/P
L55           6 SEA L54 AND L41
L56          12 SEA L54 AND (L37 OR L38)
L57          17 SEA L54 AND L24
L58           6 SEA L57 AND (L47 OR L48 OR L49)
L59        1080 SEA L53 AND L24
L60           3 SEA L59 AND L47
L61          63 SEA L59 AND L48
L62           5 SEA L59 AND L49
L63       10250 SEA (CREAM? OR GEL OR GELS OR GELLED OR GELLING#)(3A)L24
L64           1 SEA L63 AND L54
L65          17 SEA L63 AND L53
L66          16 SEA L63 AND L25
L67           9 SEA L65 AND L66
L68           2 SEA L63 AND L19
L69          34 SEA L39 OR L42 OR L50 OR L55 OR L58 OR L60 OR L62 OR L67
                OR L68
L70          32 SEA (L52 OR L56 OR L57) NOT L69
L71          17 SEA L40 NOT (L69 OR L70)
L72          26 SEA 1808-2003/PY,PRY,AY AND L69
L73          26 SEA 1808-2003/PY,PRY,AY AND L70
L74          15 SEA 1808-2003/PY,PRY,AY AND L71
L75          20 SEA L53 AND L72
L76          13 SEA L53 AND L73
L77           1 SEA L53 AND L74
L78          14 SEA L77 OR L76
L79             QUE NANO?
L80      230896 SEA L17 OR L18
L81         285 SEA ?DIAZENIUMDIOL?
L82        5549 SEA L16
L83         390 SEA (L80 OR L25) AND (L81 OR L82)
L84          32 SEA L83 AND L79
L85       78266 SEA L12
L86       36403 SEA (L80 OR L25) AND L85
L87         803 SEA L86 AND L79
L88        6016 SEA L31
L89      139276 SEA L32
L90      115124 SEA L33
L91       34303 SEA L34
L92          15 SEA L87 AND (L88 OR L89 OR L90 OR L91)
L93         814 SEA L28
L94        1749 SEA L29
```

```
L95         47972 SEA L30
L96             3 SEA L87 AND (L93 OR L94 OR L95)
L97            16 SEA (L19 OR L25) AND (L81 OR L82) AND L79
L98           243 SEA (L19 OR L25) AND L85 AND L79
L99             4 SEA L98 AND ((L88 OR L89 OR L90 OR L91))
L100            2 SEA L98 AND ((L93 OR L94 OR L95))
L101           31 SEA L92 OR L96 OR L97 OR L99 OR L100
L102           16 SEA L84 NOT L101
L103           19 SEA 1808-2003/PY,PRY,AY AND L101
L104            6 SEA 1808-2003/PY,PRY,AY AND L102
L105        33244 SEA NANO2
L106           12 SEA L103 NOT L105
L107            3 SEA L104 NOT L105

     FILE 'REGISTRY' ENTERED AT 15:06:49 ON 23 APR 2010


=> D L16 QUE STAT
L10               STR
```

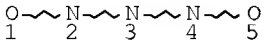


```
NODE ATTRIBUTES:
HCOUNT  IS E0      AT   4
NSPEC   IS RC      AT   2
CONNECT IS E2  RC AT   3
CONNECT IS E1  RC AT   4
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   3

STEREO ATTRIBUTES: NONE
L12         21596 SEA FILE=REGISTRY SSS FUL L10
L13               STR
```

```
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
```

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE
L14 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L16 1329 SEA FILE=REGISTRY SUB=L12 SSS FUL L13 OR L14

100.0% PROCESSED 2439 ITERATIONS 1329 ANSWERS
SEARCH TIME: 00.00.01

=> FILE HCA
FILE 'HCA' ENTERED AT 15:07:15 ON 23 APR 2010
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


---

CLAIM 18 AND RELATED

=> D L106 1-12 BIB ABS HITSTR HITIND

L106 ANSWER 1 OF 12 HCA COPYRIGHT 2010 ACS on STN
AN 143:80337 HCA Full-text
TI Systems for preparing fine particles and other substances
IN Iversen, Steen Brummerstedt; Felsvang, Karsten; Larsen, Tommy; Luethje, Viggo
PA SCF Technologies A/S, Den.
SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005058472 | A2 | 20050630 | WO 2004-DK888 | 20041219 |
| | AU 2004298723 | A1 | 20050630 | AU 2004-298723 | 20041219 |
| | AU 2004298723 | B2 | 20080710 | | |
| | CA 2550518 | A1 | 20050630 | CA 2004-2550518 | 20041219 |
| | CA 2550518 | C | 20100209 | | |
| | EP 1699549 | A2 | 20060913 | EP 2004-803039 | 20041219 |
| | CN 1909955 | A | 20070207 | CN 2004-80040700 | 20041219 |
| | JP 2007514529 | T | 20070607 | JP 2006-544222 | 20041219 |
| | IN 2006DN04056 | A | 20070713 | IN 2006-DN4056 | 20060714 |
| | KR 2006130612 | A | 20061219 | KR 2006-714539 | 20060719 |
| | US 20070265357 | A1 | 20071115 | US 2007-583024 | 20070322 |
| PRAI | DK 2003-1899 | A | 20031219 | | |
| | WO 2004-DK888 | W | 20041219 | | |

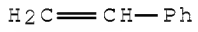
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The controlled prepn. of fine particles such as nano-cryst. films and powders with at least one solvent being in a supercrit. state is carried out by introducing substances dissolved and/or dispersed in a solvent into a vessel and allowing the substances to ppt. at least partly as primary particles on the surface or said material. Further treatment of formed particles such as encapsulation of formed primary particles and collection of formed substances in a batch wise, semi-continuous or continuous manner can be carried out.

IT 9003-53-6, Polystyrene 10024-97-2, Nitrous oxide, reactions
(systems for prepg. fine particles and other substances)
RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5
CMF C8 H8



RN 10024-97-2 HCA
CN Nitrogen oxide (N2O) (CA INDEX NAME)

IC   ICM  B01J002-00
CC   48-8 (Unit Operations and Processes)
ST   nanoparticle manuf
IT   Aerogels
     Antibacterial agents
     Ceramics
     Drugs
     Encapsulation
     Ferromagnetic materials
     Magnetic materials
       Nanoparticles
     Paramagnetic materials
     Piezoelectric materials
     Sound and Ultrasound
     Surfactants
     Waters
        (systems for prepg. fine particles and other substances)
IT   64-17-5, Ethanol, reactions   64-19-7, Acetic acid, reactions
     67-56-1, Methanol, reactions   67-63-0, Isopropanol, reactions
     67-64-1, Acetone, reactions   67-68-5, DMSO, reactions   71-23-8,
     Propanol, reactions   71-36-3, Butanol, reactions   71-41-0, Pentanol,
     reactions   74-82-8, Methane, reactions   74-84-0, Ethane, reactions
     74-85-1, Ethylene, reactions   74-98-6, Propane, reactions   75-72-9,
     Chlorotrifluoromethane   77-92-9, Citric acid, reactions   78-79-5D,
     Isoprene, polymers   78-83-1, Isobutanol, reactions   106-97-8,
     Butane, reactions   107-21-1, Ethylene glycol, reactions   109-66-0,
     Pentane, reactions   109-99-9, THF, reactions   110-54-3, Hexane,
     reactions   110-82-7, Cyclohexane, reactions   111-27-3, Hexanol,
     reactions   121-69-7, N,N-Dimethylaniline, reactions   124-38-9,
     Carbon dioxide, reactions   142-82-5, Heptane, reactions   593-53-3,
     Monofluoromethane   2551-62-4, Sulfur hexafluoride   7664-41-7,
     Ammonia, reactions   9002-86-2, Polyvinyl chloride   9002-88-4,
     Polyethylene   9003-05-8, Polyacrylamide   9003-07-0, Polypropylene
     9003-20-7, Polyvinyl acetate 9003-53-6, Polystyrene
     10024-97-2, Nitrous oxide, reactions
     25038-59-9, reactions   25322-68-3, Polyethylene glycol
        (systems for prepg. fine particles and other substances)
OSC.G   2     THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT  6     THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 2 OF 12  HCA  COPYRIGHT 2010 ACS on STN
AN   143:32415  HCA  Full-text
TI   Soft tissue implants and anti-scarring agents
IN   Hunter, William L.; Gravett, David M.; Toleikis, Philip M.; Maiti,
     Arpita
PA   Angiotech International A.-G., Switz.
SO   PCT Int. Appl., 2592 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 19

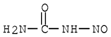
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005051444 | A2 | 20050609 | WO 2004-US39465 | 20041122 |
| | US 20050148512 | A1 | 20050707 | US 2004-986230 | 20041110 |
| | US 20050181977 | A1 | 20050818 | US 2004-986231 | 20041110 |
| | CN 101094613 | A | 20071226 | CN 2004-80031664 | 20041110 |
| | AU 2004293075 | A1 | 20050609 | AU 2004-293075 | 20041122 |
| | CA 2536192 | A1 | 20050609 | CA 2004-2536192 | 20041122 |
| | WO 2005051232 | A2 | 20050609 | WO 2004-US39346 | 20041122 |
| | WO 2005051232 | A3 | 20051208 | | |
| | WO 2006055008 | A2 | 20060526 | WO 2004-US39353 | 20041122 |
| | WO 2006055008 | A3 | 20090416 | | |
| | EP 1687041 | A2 | 20060809 | EP 2004-812062 | 20041122 |
| | CN 1878514 | A | 20061213 | CN 2004-80033341 | 20041122 |
| | JP 2007514472 | T | 20070607 | JP 2006-541689 | 20041122 |
| | US 20050149158 | A1 | 20050707 | US 2004-409 | 20041129 |
| | US 20050175662 | A1 | 20050811 | US 2004-451 | 20041129 |
| | US 20050175661 | A1 | 20050811 | US 2004-999205 | 20041129 |
| | US 20050186243 | A1 | 20050825 | US 2004-97 | 20041129 |
| | US 20050186242 | A1 | 20050825 | US 2004-999204 | 20041129 |
| | US 20050191331 | A1 | 20050901 | US 2004-1419 | 20041130 |
| | US 20050175663 | A1 | 20050811 | US 2004-1791 | 20041202 |
| | US 20050181008 | A1 | 20050818 | US 2004-1786 | 20041202 |
| | US 20050181011 | A1 | 20050818 | US 2004-1792 | 20041202 |
| | US 20050143817 | A1 | 20050630 | US 2004-6899 | 20041207 |
| | US 20050177103 | A1 | 20050811 | US 2004-6314 | 20041207 |
| | US 20050177225 | A1 | 20050811 | US 2004-6895 | 20041207 |
| | US 20050181004 | A1 | 20050818 | US 2004-6289 | 20041207 |
| | US 20060147492 | A1 | 20060706 | US 2006-343809 | 20060131 |
| | ZA 2006002379 | A | 20091028 | ZA 2006-2379 | 20060323 |
| | CN 101420970 | A | 20090429 | CN 2004-80033576 | 20060515 |
| | IN 2006KN01694 | A | 20070511 | IN 2006-KN1694 | 20060619 |
| | IN 2006KN01695 | A | 20070511 | IN 2006-KN1695 | 20060619 |
| | IN 2006KN01698 | A | 20070511 | IN 2006-KN1698 | 20060619 |
| PRAI | US 2003-523908P | P | 20031120 | | |
| | US 2003-524023P | P | 20031120 | | |
| | US 2003-525226P | P | 20031124 | | |
| | US 2003-526541P | P | 20031203 | | |
| | US 2004-578471P | P | 20040609 | | |
| | US 2004-586861P | P | 20040709 | | |
| | US 2004-986230 | A | 20041110 | | |
| | US 2004-986231 | A | 20041110 | | |
| | US 2003-518785P | P | 20031110 | | |
| | US 2004-582833P | P | 20040624 | | |
| | US 2004-986450 | A1 | 20041110 | | |
| | WO 2004-US37930 | W | 20041110 | | |
| | WO 2004-US39183 | W | 20041122 | | |
| | WO 2004-US39346 | W | 20041122 | | |
| | WO 2004-US39353 | W | 20041122 | | |
| | WO 2004-US39465 | W | 20041122 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention relates to soft tissue implants for use in cosmetic or reconstructive surgery and to compns. to make the implants resistant to growth by inflammatory scar tissue. Thus, a silicone gel contg. paclitaxel was used as a filling in breast implant.

IT 10102-43-9, Nitrogen oxide (NO), biological studies
(soft tissue implants and anti-scarring agents)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

IT 13010-20-3D, Nitrosourea, derivs.
(soft tissue implants and anti-scarring agents)
RN 13010-20-3 HCA
CN Urea, N-nitroso- (CA INDEX NAME)



IT 9012-76-4, Chitosan
(soft tissue implants and anti-scarring agents)
RN 9012-76-4 HCA
CN Chitosan (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM A61L027-00
ICS A61L027-54; A61L031-00; A61L031-16
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 1, 62
IT Drug delivery systems
(nanospheres; soft tissue implants and anti-scarring agents)
IT 56-23-5, biological studies 10102-43-9, Nitrogen oxide (NO), biological studies
(soft tissue implants and anti-scarring agents)
IT 50-07-7, Mitomycin C 50-44-2, 6-Mercaptopurine 51-21-8, 5-FU 53-79-2 55-21-0, Benzamide 55-86-7, Nitrogen mustard 57-22-7 59-05-2, Methotrexate 65-46-3D, Cytidine, analogs 69-33-0, Tubercidin 98-92-0, Nicotinamide 107-41-5, Hexylene glycol 120-73-0D, Purine, analogs 127-07-1, Hydroxyurea 127-07-1D, Hydroxyurea, derivs. 129-56-6, SP 600125 147-94-4, Cytarabine 289-95-2D, Pyrimidine, analogs 459-73-4, Ethyl glycine 501-36-0, Resveratrol 518-28-5, Podophyllotoxin 865-21-4, Vinblastine 1404-15-5 3672-15-9, D-Mannose 6-phosphate 4291-63-8, Cladribine 7059-24-7, Chromomycin A3 7440-06-4D, Platinum, compds. 7689-03-4, Camptothecin 7689-03-4D, Camptothecin, derivs. 7784-18-1, Aluminum

fluoride (AlF3) 7789-20-0, Deuterium oxide 10540-29-1
13010-20-3D, Nitrosourea, derivs. 14110-64-6, Cytochalasin A
15663-27-1, Cisplatin 18378-89-7 18457-55-1 19542-67-7, BAY
11-7082 20830-81-3 22668-01-5 22862-76-6 23214-92-8
24280-93-1, Mycophenolic acid 25316-40-9 25812-30-0 28128-19-0,
2-Mercaptopurine 30562-34-6, Geldanamycin 31698-14-3 32222-06-3,
1α-25-Dihydroxyvitamin D3 33069-62-4 33419-42-0, Etoposide
34031-32-8, Auranofin 34157-83-0 36877-68-6D, Nitroimidazole,
derivs. 41859-67-0 52214-84-3 53123-88-9, Rapamycin
53123-88-9D, Rapamycin, desmethyl derivs. 55837-20-2 56390-09-1
58957-92-9 61318-90-9, Sulconazole 61825-94-3 64222-94-2,
15-Deoxyprostaglandin J2 65271-80-9 70539-42-3 71486-22-1
74913-06-7, Chromomycin 75330-75-5, Lovastatin 79902-63-9
84625-61-6, Itraconazole 86160-53-4D, analogs 95058-81-4,
Gemcitabine 98629-43-7, Gusperimus 104987-11-3, Tacrolimus
114719-57-2 114977-28-5, Docetaxel 128794-94-5, Mycophenolate
mofetil 137071-32-0, Pimecrolimus 149550-36-7, LY 290181
152121-30-7, SB 202190 159351-69-6, Everolimus 160677-67-8,
Tresperimus 164301-51-3, CNI 1493 173026-17-0, BXT 51072
186692-46-6, CYC 202 189453-10-9 222036-17-1, GW 8510
254750-02-2, IDN 6556 329773-35-5, Bay 58-2667 467214-20-6
851536-75-9, Biolimus A9
(soft tissue implants and anti-scarring agents)

IT 50-02-2, Dexamethasone 50-28-2, Estradiol, biological studies
51-45-6, Histamine, biological studies 56-53-1, Diethyl stilbestrol
57-50-1D, Sucrose, derivs. 62-55-5, Thioacetamide 64-17-5,
Ethanol, biological studies 79-10-7D, Acrylic acid, esters, polymers
100-42-5D, Styrene, polymers 106-99-0D, Butadiene, polymers
123-78-4 302-79-4, all-trans-Retinoic acid 302-79-4D, Retinoic
acid, derivs. 361-37-5 471-34-1, Calcium carbonate, biological
studies 1306-06-5, Hydroxylapatite 1332-37-2, Iron oxide,
biological studies 1404-04-2, Neomycin 4759-48-2, Isotretinoin
7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological
studies 7439-96-5, Manganese, biological studies 7440-25-7,
Tantalum, biological studies 7440-26-8, Technetium, biological
studies 7440-39-3, Barium, biological studies 7440-39-3D, Barium,
compds. 7440-41-7, Beryllium, biological studies 7440-47-3,
Chromium, biological studies 7440-50-8, Copper, biological studies
7440-54-2D, Gadolinium, chelates 7631-86-9, Silica, biological
studies 7778-18-9, Calcium sulfate 9002-72-6, Growth hormone
9002-86-2, PVC 9003-07-0, Polypropylene 9003-39-8, Plasdone K 90D
9004-61-9, Hyaluronic acid 9011-14-7, Poly(methyl methacrylate)
9012-76-4, Chitosan 9061-61-4, NGF 10103-46-5, Calcium
phosphate 11096-26-7, Erythropoietin 12441-09-7D, Sorbitan, esters
12619-70-4, Cyclodextrin 14807-96-6, Talc, biological studies
15802-18-3D, CyanoAcrylic acid, esters, polymers 24980-41-4,
Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3,
Polyethylene glycol 25614-03-3, Bromocriptin 26009-03-0,
PolyGlycolic acid 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic
acid) 26124-68-5, PolyGlycolic acid 26354-94-9, Polyvalerolactone

26499-05-8, Polyvalerolactone, SRU 34346-01-5, Glycolic acid-lactic acid copolymer 50903-99-6, L-Name 51110-01-1D, Somatostatin, analogs 59865-13-3, Cyclosporin A 61912-98-9, Insulin-like growth factor 64612-25-5, Fucan 81627-83-0, Macrophage Colony-stimulating factor 83869-56-1, Granulocyte-macrophage Colony-stimulating factor 99896-85-2 114949-22-3, Activin 123626-67-5, Endothelin 1 125265-78-3, N-Carboxybutyl Chitosan 127464-60-2, VEGF 143011-72-7, Granulocyte Colony-stimulating factor 152044-54-7, Epithilone B 154467-38-6 169501-65-9 188492-68-4 189460-40-0, Connective tissue growth factor 250740-90-0, Angiopoietin 302781-03-9 698393-66-7, Isobutylene-styrene triblock copolymer
(soft tissue implants and anti-scarring agents)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L106 ANSWER 3 OF 12 HCA COPYRIGHT 2010 ACS on STN

AN 142:379465 HCA Full-text

TI Prosthetic implants with functionalized carbon surfaces

IN Rathenow, Jorg; Asgari, Soheil; Ban, Andreas; Kunstmann, Jurgen; Mayer, Bernhard

PA Germany

SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of Appl. No. PCT/EP04/05785.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 10

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 20050079201 | A1 | 20050414 | US 2004-939021 | 20040910 |
| | DE 10324415 | A1 | 20041216 | DE 2003-10324415 | 20030528 |
| | DE 10333098 | A1 | 20050210 | DE 2003-10333098 | 20030721 |
| | DE 10333099 | A1 | 20050210 | DE 2003-10333099 | 20030721 |
| | WO 2004105826 | A2 | 20041209 | WO 2004-EP5785 | 20040528 |
| | WO 2004105826 | A3 | 20050623 | | |
| PRAI | DE 2003-10324415 | A | 20030528 | | |
| | DE 2003-10333098 | A | 20030721 | | |
| | DE 2003-10333099 | A | 20030721 | | |
| | WO 2004-EP5785 | A2 | 20040528 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention relates to a method of producing medical implants having functionalized surfaces by providing a medical implant with at least one carbon-based layer on at least one part of the surface of the implant, activating the carbon-based layer by creating porosity and functionalizing the activated carbon-based layer. This invention also relates to functionalized implants obtained in by this method (no data).

IT 9012-76-4, Chitosan
(prosthetic implants with functionalized carbon surfaces)

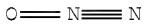
RN 9012-76-4 HCA

CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 10024-97-2, Nitrous oxide, uses
(prosthetic implants with functionalized carbon surfaces)

RN   10024-97-2  HCA
CN   Nitrogen oxide (N2O)  (CA INDEX NAME)



IT   9004-34-6, Cellulose, biological studies
(prosthetic implants with functionalized carbon surfaces)
RN   9004-34-6  HCA
CN   Cellulose  (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC   ICM  B05D003-04
ICS  A61F002-02; B05D003-10
INCL 424424000; 623023740; 424426000; 427002210; 427002240
CC   63-7 (Pharmaceuticals)
IT   Drug delivery systems
(nanocapsules; prosthetic implants with functionalized
carbon surfaces)
IT   Nanostructures
Spheres
(nanospheres; prosthetic implants with functionalized
carbon surfaces)
IT   Absorption
Adsorption
Air
Animal cell
Animal tissue
Animal tissue culture
Bone
Cations
Ceramics
Chemisorption
Embryophyta
Emulsions
Ions
Liposomes
Micelles
Microcapsules
Microemulsions
Microorganism
Nanoparticles
Physisorption
Plants
Porosity
Solvents
Sputtering
Viral vectors
(prosthetic implants with functionalized carbon surfaces)
IT   79-41-4D, esters, polymers of   107-73-3, Phosphorylcholine.
7440-02-0, Nickel, biological studies   7440-05-3, Palladium,

biological studies   7440-06-4, Platinum, biological studies
7440-25-7, Tantalum, biological studies   7440-32-6, Titanium,
biological studies   7440-44-0, Carbon, biological studies
7440-48-4, Cobalt, biological studies   7440-50-8, Copper, biological
studies   7440-57-5, Gold, biological studies   9000-07-1, Carrageenan
9002-88-4, Polyethylene   9002-89-5   9003-01-4, Polyacrylic acid
9003-07-0   9004-32-4, Carboxymethyl cellulose   9004-61-9, Hyaluronic
acid   9004-64-2, Hydroxypropyl cellulose   9004-65-3,
Hydroxypropylmethyl cellulose   9004-67-5, Methyl cellulose
9005-25-8, Starch, biological studies   9005-32-7, Alginic acid
9012-76-4, Chitosan   12597-68-1, Stainless steel, biological
studies   12683-48-6   24937-78-8, Poly(ethylene vinyl acetate)
25038-59-9, biological studies   25087-26-7   25104-18-1,
Poly-L-lysine   25190-06-1, Polytetramethylene glycol   25322-68-3,
Polyethylene oxide   25322-69-4, Polypropylene oxide   26009-03-0,
Poly(glycolide)   26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]
26063-00-3, Poly(hydroxybutyrate)   26202-08-4, Poly(glycolide)
26680-10-4, Poly(lactide)   26744-04-7   30209-88-2   31621-87-1,
Polydioxanone   34346-01-5   38000-06-5, Poly-L-lysine   52013-44-2,
Nitinol   53237-50-6   78644-42-5, Poly(malic acid)   102190-94-3,
Poly(hydroxyvaleric acid)   111985-13-8   681029-93-6,
Carboxymethylcellulose phthalate   691397-13-4, Pluronic
(prosthetic implants with functionalized carbon surfaces)

IT   1344-28-1, Alumina, uses   7782-44-7, Oxygen, uses 10024-97-2
, Nitrous oxide, uses
(prosthetic implants with functionalized carbon surfaces)

IT   70-18-8, Glutathione, biological studies   1398-61-4, Chitin
9004-34-6, Cellulose, biological studies   9004-54-0,
Dextrans, biological studies   9013-20-1, Streptavidin   439211-02-6,
StrepTactin
(prosthetic implants with functionalized carbon surfaces)

OSC.G   3   THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L106 ANSWER 4 OF 12  HCA  COPYRIGHT 2010 ACS on STN

AN   142:214882  HCA  Full-text

TI   Stabilization and ionic triggering of nitric oxide release

IN   Smith, Daniel J.

PA   The University of Akron, USA

SO   PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DT   Patent

LA   English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005011575 | A2 | 20050210 | WO 2004-US23867 | 20040726 |
| | WO 2005011575 | A3 | 20060112 | | |
| | EP 1648527 | A2 | 20060426 | EP 2004-779101 | 20040726 |
| | US 20090136410 | A1 | 20090528 | US 2007-565573 | 20070226 |
| PRAI | US 2003-490218P | P | 20030725 | | |
| | WO 2004-US23867 | W | 20040726 | | |

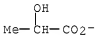
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Provided is a method for producing nitric oxide that employs an ion exchange resin. Also provided is a method for producing nitric oxide that combines a salt with a gel or cream. A method is provided for producing nitric oxide that combines a pH adjuster with a diazeniumdiolate-contg. compd. or compn.

IT 113-21-3, Lactate, analysis 126-44-3, Citrate, analysis 14265-44-2, Phosphate, analysis
(stabilization and ionic triggering of nitric oxide release)

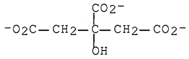
RN 113-21-3 HCA

CN Propanoic acid, 2-hydroxy-, ion(1-) (CA INDEX NAME)



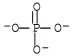
RN 126-44-3 HCA

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy-, ion(3-) (CA INDEX NAME)



RN 14265-44-2 HCA

CN Phosphate (CA INDEX NAME)



IT 9000-11-7, CM cellulose 9003-53-6, Polystyrene 9004-34-6, Cellulose, analysis 9012-76-4, Chitosan
(stabilization and ionic triggering of nitric oxide release)

RN 9000-11-7 HCA

CN Cellulose, carboxymethyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6

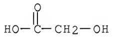
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

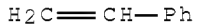
CRN 79-14-1
CMF C2 H4 O3



RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

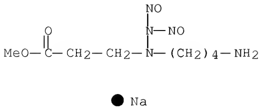
CM 1

CRN 100-42-5
CMF C8 H8

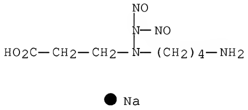


RN 9004-34-6 HCA
CN Cellulose (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCA
CN Chitosan (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 10102-43-9, Nitric oxide, biological studies
(stabilization and ionic triggering of nitric oxide release)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

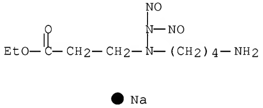
IT 839676-39-0 839676-40-3 839676-41-4
(stabilization and ionic triggering of nitric oxide release)
RN 839676-39-0 HCA
CN Propanoic acid, 3-[1-(4-aminobutyl)-2,2-dinitrosohydrazinyl]-, methyl ester, sodium salt (1:1) (CA INDEX NAME)



RN 839676-40-3 HCA
CN Propanoic acid, 3-[1-(4-aminobutyl)-2,2-dinitrosohydrazinyl]-, sodium salt (1:1) (CA INDEX NAME)



RN 839676-41-4 HCA
CN Propanoic acid, 3-[1-(4-aminobutyl)-2,2-dinitrosohydrazinyl]-, ethyl ester, sodium salt (1:1) (CA INDEX NAME)



IC ICM A61K
CC 9-16 (Biochemical Methods)
IT Ion exchangers
  Nanofibers
  Nanoparticles
 pH
  (stabilization and ionic triggering of nitric oxide release)
IT 113-21-3, Lactate, analysis 126-44-3, Citrate, analysis 14265-44-2, Phosphate, analysis
  (stabilization and ionic triggering of nitric oxide release)
IT 9000-11-7, CM cellulose 9003-53-6, Polystyrene

9004-34-6, Cellulose, analysis 9012-76-4, Chitosan
(stabilization and ionic triggering of nitric oxide release)
IT 10102-43-9, Nitric oxide, biological studies
(stabilization and ionic triggering of nitric oxide release)
IT 16545-40-7 27561-78-0 201168-09-4D, Dowex 1X400, reaction with NONOates 839676-39-0 839676-40-3 839676-41-4
(stabilization and ionic triggering of nitric oxide release)
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 5 OF 12 HCA COPYRIGHT 2010 ACS on STN
AN 142:204864 HCA Full-text
TI Medical implants coated with porous carbon surfaces carrying drugs
IN Rathenow, Joerg; Asgari, Soheil; Ban, Andreas
PA Blue Membranes GmbH, Germany
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 10

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 10333099 | A1 | 20050210 | DE 2003-10333099 | 20030721 |
| | DE 202004009061 | U1 | 20040916 | DE 2004-202004009061 | 20040528 |
| | AU 2004243503 | A1 | 20041209 | AU 2004-243503 | 20040528 |
| | CA 2519750 | A1 | 20041209 | CA 2004-2519750 | 20040528 |
| | WO 2004105826 | A2 | 20041209 | WO 2004-EP5785 | 20040528 |
| | WO 2004105826 | A3 | 20050623 | | |
| | EP 1626749 | A2 | 20060222 | EP 2004-735213 | 20040528 |
| | EP 1626749 | B1 | 20081008 | | |
| | CN 1791436 | A | 20060621 | CN 2004-80013969 | 20040528 |
| | BR 2004010957 | A | 20060704 | BR 2004-10957 | 20040528 |
| | JP 2007502184 | T | 20070208 | JP 2006-529943 | 20040528 |
| | AT 410196 | T | 20081015 | AT 2004-735213 | 20040528 |
| | PT 1626749 | E | 20090114 | PT 2004-735213 | 20040528 |
| | EP 2033666 | A2 | 20090311 | EP 2008-165943 | 20040528 |
| | ES 2315661 | T3 | 20090401 | ES 2004-735213 | 20040528 |
| | IL 170898 | A | 20100328 | IL 2004-170898 | 20040528 |
| | US 20050079201 | A1 | 20050414 | US 2004-939021 | 20040910 |
| | MX 2005011231 | A | 20060914 | MX 2005-11231 | 20051019 |
| | HK 1089702 | A1 | 20090626 | HK 2006-106757 | 20060613 |
| PRAI | DE 2003-10324415 | A1 | 20030528 | | |
| | DE 2003-10333098 | A1 | 20030721 | | |
| | DE 2003-10333099 | A1 | 20030721 | | |
| | EP 2004-735213 | A3 | 20040528 | | |
| | WO 2004-EP5785 | W | 20040528 | | |

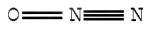
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB The invention concerns a method for the prepn. of medical implants with functionalized surfaces involving the steps: (a)prepn. of medical implant

that is at least partially coated with a carbon-contg. layer; (b) activation of the carbon-contg. layer by forming a pores on the surface; (c) functionalization of the activated, carbon-contg. surface. The carbon-contg. layer is composed of pyrolytically prepd. carbon, carbon deposited by CVD or PVD process, sputtered carbon, metal carbides, metal carbonitrides, metal oxynitrides, metal oxycarbides or their combinations. The carbon-contg. layers are activated by oxidn. with air, oxygen, dinitrogen oxide, and oxidizing acids, also at elevated temp. A redn. process can also be used for activation. Activated surfaces are functionalized by loading one or more drugs, microorganisms or cells onto the surface. Activated surfaces can be sealed in a CVD or CVI (chem. vapor infiltration) process. The implants are prepd. from carbon, carbon fibers, ceramics, glass, metals, alloys, artificial bone, stone, minerals. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, bone and joint prosthesis, artificial heart, heart valves, s.c., and i.m. implants can be activated and functionalized.

IT 10024-97-2, Dinitrogen oxide, biological studies
(medical implants coated with porous carbon surfaces carrying drugs)

RN 10024-97-2 HCA

CN Nitrogen oxide (N2O) (CA INDEX NAME)




IT 9004-34-6, Cellulose, biological studies 9012-76-4, Chitosan 13010-20-3, Nitrosourea
(medical implants coated with porous carbon surfaces carrying drugs)

RN 9004-34-6 HCA

CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

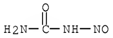
RN 9012-76-4 HCA

CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 13010-20-3 HCA

CN Urea, N-nitroso- (CA INDEX NAME)




IC ICM A61L027-00
ICS A61L029-00; A61L033-00; A61F002-30; A61F002-28; A61F002-44; A61F002-24

CC 63-7 (Pharmaceuticals)

IT Drug delivery systems

(nanocapsules; medical implants coated with porous carbon surfaces carrying drugs)

IT Drug delivery systems
(nanospheres; medical implants coated with porous carbon surfaces carrying drugs)

IT 7782-44-7, Oxygen, biological studies 10024-97-2, Dinitrogen oxide, biological studies
(medical implants coated with porous carbon surfaces carrying drugs)

IT 50-02-2, Dexamethasone 50-07-7, Mitomycin 50-23-7, Hydrocortisone 50-24-8, Prednisolone 50-56-6, Oxytocin, biological studies 50-78-2, Acetylsalicylic acid 51-41-2, Norepinephrine 51-43-4, Epinephrine 51-45-6, Histamine, biological studies 51-61-6, Dopamine, biological studies 52-53-9, Verapamil 53-03-2, Prednisone 53-06-5, Cortisone 53-86-1, Indomethacin 54-05-7, Chloroquine 56-23-5, Carbon tetrachloride, biological studies 56-54-2, Quinidine 56-75-7, Chloramphenicol 57-22-7, Vincristin 57-41-0, Phenytoine 58-14-0, Pyrimethamin 58-61-7, Adenosine, biological studies 59-05-2, Methotrexate 59-30-3, Folic acid, biological studies 60-54-8, Tetracycline 61-33-6, Penicillin G, biological studies 61-68-7, Mefenamic acid 62-55-5, Thioacetamide 63-74-1, Sulfonamide 64-17-5, Ethanol, biological studies 68-35-9, Sulfadiazine 69-53-4, Ampicillin 71-63-6, Digitoxin 80-08-0, Dapson 83-43-2, Methylprednisolone 87-08-1, Penicillin V 114-07-8, Erythromycin 118-42-3, Hydroxychloroquine 119-04-0, Framycetin 124-94-7, Triamcinolone 127-07-1, Hydroxycarbamide 127-31-1, Fludrocortisone 137-58-6, Lidocaine 140-64-7, Pentamidine diisethionate 152-47-6, Sulfalene 154-21-2, Lincomycin 302-79-4, Tretinoin 356-12-7, Fluocinonide 361-37-5 365-26-4, Oxilofrine 370-14-9, Pholedrine 378-44-9, Betamethasone 382-67-2, Desoximetasone 443-48-1, Metronidazol 466-06-8, Proscillaridin 484-23-1, Dihydralazin 500-92-5, Proguanil 511-12-6, Dihydroergotamine 525-66-6, Propranolol 536-21-0, Norfenefrine 552-94-3, Salsalate 555-30-6, Methyldopa 564-25-0, Doxycycline 586-06-1, Orciprenaline 630-60-4, Ouabain 638-94-8, Desonide 644-62-2 660-27-5, Diisopropyl amine dichloroacetate 709-55-7, Etilefrine 738-70-5, Trimethoprim 768-94-5, Amantadine 807-38-5, Fluocinolone 865-21-4, Vinblastin 1066-17-7, Colistin 1306-05-4, Fluorapatite 1306-06-5, Hydroxylapatite 1393-87-9, Fusafungine 1404-26-8, Polymyxin B 1404-90-6, Vancomycin 1524-88-5, Flurandrenolide 1695-77-8, Spectinomycin 1951-25-3, Amiodarone 2589-47-1, Prajmaliumbitartrate, biological studies 2809-21-4, Etidronic acid 3056-17-5, Stavudine 3093-35-4, Halcinonide 3385-03-3, Flunisolide 3737-09-5, Disopyramide 3930-20-9, Sotalol 4360-12-7, Ajmalin 4419-39-0, Beclomethasone 4828-27-7, Clocortolone 4936-47-4, Nifuratel 5104-49-4, Flurbiprofen 5355-48-6 6452-71-7, Oxprenolol 6990-06-3, Fusidinic acid 7440-22-4, Silver, biological studies 7440-25-7, Tantalum, biological studies 7440-32-6, Titanium, biological studies 7440-66-6, Zinc, biological studies 7481-89-2, Zalcitabine 7542-37-2, Paromomycin 7681-49-4, Sodium fluoride, biological studies 7758-87-4, Tricalciumphosphate 8001-27-2, Hirudin

8025-81-8, Spiramycin   8067-24-1, Co-Dergocrine mesylate   9000-07-1, Carrageenan   9002-01-1, Streptokinase   9002-60-2, Corticotropin, biological studies   9002-71-5, Thyrotrophin   9002-88-4, Polyethylene   9002-89-5, Polyvinylalcohol   9003-01-4, Acrylic acid homopolymer   9003-07-0, Polypropylene   9003-39-8, Polyvinylpyrrolidone   9004-32-4, Carboxymethylcellulose 9004-34-6, Cellulose, biological studies   9004-54-0, Dextran, biological studies   9004-61-9, Hyaluronic acid   9004-64-2, Hydroxypropylcellulose   9004-65-3, Hydroxypropylmethylcellulose   9004-67-5, Methylcellulose   9005-25-8, Starch, biological studies   9005-32-7, Alginic acid   9005-49-6, Heparin, biological studies 9012-76-4, Chitosan   9039-53-6, Urokinase   9061-61-4, Nerve growth factor   10118-90-8, Minocycline   10163-15-2, Disodium fluorophosphate   10596-23-3, Clodronic acid   11096-26-7, Erythropoietin   11111-12-9, Cephalosporin   11128-99-7, Angiotensin II   12597-68-1, Stainless steel, biological studies   12629-01-5, Somatropin   12683-48-6   13010-20-3, Nitrosourea   13292-46-1, Rifampicin   13463-67-7, Titanium dioxide, biological studies   14402-89-2, Nitroprusside sodium   14636-12-5, Terlipressin   15307-86-5, Diclofenac   15663-27-1, Cisplatin   15686-71-2, Cefalexin   15687-27-1, Ibuprofen   16662-47-8, Gallopamil   16679-58-6, Desmopressin   16846-24-5, Josamycin   18323-44-9, Clindamycin   19216-56-9, Prazosin   19387-91-8, Tinidazol   19388-87-5, Taurolidine   20830-75-5, Digoxin   21256-18-8, Oxaprozin   21829-25-4, Nifedipine   22071-15-4, Ketoprofen   22204-53-1, Naproxen   22254-24-6, Ipratropium bromide   22494-42-4, Diflunisal   23155-02-4, Fosfomycin   24937-78-8   25038-59-9, biological studies   25087-26-7, Methacrylic acid homopolymer   25104-18-1, Polylysine   25122-41-2, Clobetasol   25190-06-1, Poly(Tetramethylene glycol)   25322-68-3, Polyethylene oxide   25322-69-4, Polypropylene oxide   25614-03-3, Bromocriptine   25953-19-9, Cefazolin   26009-03-0, Polyglycolic acid   26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]   26063-00-3, β-Hydroxybutyric acid homopolymer   26099-09-2   26100-51-6, Polylactic acid   26124-68-5, Polyglycolic acid   26171-23-3, Tolmetin   26744-04-7, β-Hydroxybutyric acid homopolymer, sru   26787-78-0, Amoxicillin   26807-65-8, Indapamide   26844-12-2, Indoramin   29122-68-7, Atenolol   29679-58-1, Fenoprofen   30209-88-2, Polyallyl cyanoacrylate   30516-87-1, Zidovudine   30578-37-1, Amezinium metil sulfate   30685-43-9, Metildigoxin   31621-87-1, Polydioxanone   31828-71-4, Mexiletine   33069-62-4, Paclitaxel   33515-09-2, Gonadorelin   33774-52-6, Detajmiumbitartrate, biological studies   34346-01-5, Lactic acid-glycolic acid copolymer   34661-75-1, Urapidil   35607-66-0, Cefoxitin   36322-90-4, Piroxicam   36703-88-5   36791-04-5, Ribavirin   38194-50-2, Sulindac   38304-91-5, Minoxidil   39562-70-4, Nitrendipine   40391-99-9   41340-25-4, Etodolac   41575-94-4, Carboplatin   41708-72-9, Tocainide   42399-41-7, Diltiazem   42794-76-3, Midodrine   42924-53-8, Nabumetone   50370-12-2, Cefadroxil   50972-17-3, Bacampicillin   51022-69-6, Amcinonide   51110-01-1, Somatostatin   51264-14-3, Amsacrine   51333-22-3, Budesonide   51384-51-1, Metoprolol   51481-65-3, Mezlocillin   51940-44-4, Pipemidic acid   52013-44-2, Nitinol

53123-88-9, Sirolimus 53230-10-7, Mefloquine 53237-50-6
53714-56-0, Leuprorelin 53910-25-1, Pentostatin 53994-73-3,
Cefaclor 54063-53-5, Propafenone 54143-55-4, Flecainide
54143-56-5, Flecainide acetate 55142-85-3, Ticlopidine 55268-75-2,
Cefuroxim 56391-56-1, Netilmicin 57773-63-4, Triptorelin
57982-77-1, Buserelin 58066-85-6, Miltefosine 59277-89-3,
Aciclovir 61036-62-2, Teicoplanin 61477-96-1, Piperacillin
61622-34-2, Cefotiam
(medical implants coated with porous carbon surfaces carrying drugs)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L106 ANSWER 6 OF 12 HCA COPYRIGHT 2010 ACS on STN

AN 142:42564 HCA Full-text

TI Treatment of carbon nanostructure using fluidization

IN Jung, Kyeong Taek; Kim, Myung Soo; Jeon, Kwan Goo; Lee, Young Hee

PA S. Korea

SO U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

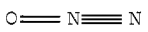
| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 20040253374 | A1 | 20041216 | US 2004-830914 | 20040423 |
| | KR 2004091951 | A | 20041103 | KR 2003-25733 | 20030423 |
| | KR 2004093542 | A | 20041106 | KR 2003-27453 | 20030430 |
| | JP 2005001980 | A | 20050106 | JP 2004-128506 | 20040423 |
| PRAI | KR 2003-25733 | A | 20030423 | | |
| | KR 2003-27453 | A | 20030430 | | |

AB The present invention relates to an efficient and simple method for treating a carbon nanostructure by fluidizing the carbon nanostructure in a reactor using a carrier gas and a reactive gas to contact the fluidized carbon nanostructure. Carbon nanostructures can be effectively purified, uniformly surface-treated and easily employable in the post-process, e.g., in the prodn. of a composite.

IT 10024-97-2, Nitrogen oxide (N2O), processes 10102-43-9, Nitrogen oxide (NO), processes 10102-44-0, Nitrogen oxide (NO2), processes
(surface treating agent; treatment of carbon nanostructure using fluidization)

RN 10024-97-2 HCA

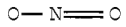
CN Nitrogen oxide (N2O) (CA INDEX NAME)



RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

RN   10102-44-0  HCA
CN   Nitrogen oxide (NO2)  (CA INDEX NAME)



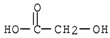
IT   9000-11-7, Carboxymethyl cellulose
        (treatment of carbon nanostructure using fluidization)
RN   9000-11-7  HCA
CN   Cellulose, carboxymethyl ether  (CA INDEX NAME)

     CM   1

     CRN  9004-34-6
     CMF  Unspecified
     CCI  PMS, MAN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

     CM   2

     CRN  79-14-1
     CMF  C2 H4 O3



IC   ICM  C23C016-26
INCL 427213000; 427249100
CC   57-8 (Ceramics)
     Section cross-reference(s): 66
ST   carbon nanostructure fluidization surface treatment
     composite manuf
IT   Sulfonation
        (agent; treatment of carbon nanostructure using
        fluidization)
IT   Titanates
        (alkoxides, secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)
IT   Silanes
        (alkoxy, secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)

IT   Metal alkoxides
        (aluminum, secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)
IT   Nanostructures
        (carbon; treatment of carbon nanostructure using
        fluidization)
IT   Gases
        (carrier; treatment of carbon nanostructure using
        fluidization)
IT   Vapor deposition process
        (chem.; treatment of carbon nanostructure using
        fluidization)
IT   Air
        (purifying gas; treatment of carbon nanostructure using
        fluidization)
IT   Composites
        (reinforced; treatment of carbon nanostructure using
        fluidization)
IT   Carbonates, processes
     Chlorides, processes
     Metal alkoxides
     Nitrates, processes
     Phosphines
        (secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)
IT   Metal alkoxides
        (titanium, secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)
IT   Coupling agents
     Dispersion (of materials)
     Etching
     Fluidization
     Fluidized beds
     Fluorination
     Heat treatment
     Nitration
     Oxidation
     Plasma
     Purification
     Raman spectra
     Surface treatment
     X-ray photoelectron spectra
        (treatment of carbon nanostructure using fluidization)
IT   Metals, processes
        (vaporized, secondary surface treatment agent; treatment of carbon
        nanostructure using fluidization)
IT   1333-74-0, Hydrogen, processes   7664-41-7, Ammonia, processes
        (etching gas; treatment of carbon nanostructure using
        fluidization)
IT   7440-37-1, Argon, uses   7440-59-7, Helium, uses   7727-37-9,
     Nitrogen, uses
        (gas carrier; treatment of carbon nanostructure using

fluidization)
IT 7440-44-0P, Carbon, preparation
(nanostructure; treatment of carbon nanostructure
using fluidization)
IT 124-38-9, Carbon dioxide, processes 7647-01-0, Hydrochloric acid,
processes 7664-39-3, Fluorhydric acid, processes 7664-93-9,
Sulfuric acid, processes 7697-37-2, Nitric acid, processes
7722-84-1, Hydrogen peroxide, processes
(purifying gas and surface treating agent; treatment of carbon
nanostructure using fluidization)
IT 7782-44-7, Oxygen, processes
(purifying gas; treatment of carbon nanostructure using
fluidization)
IT 71-50-1, Acetate, processes
(secondary surface treatment agent; treatment of carbon
nanostructure using fluidization)
IT 74-90-8, Hydrogen cyanide, processes 110-86-1, Pyridine, processes
7446-09-5, Sulfur oxide, processes 7664-38-2, Phosphoric acid,
processes 7722-64-7, Potassium permanganate 7758-05-6, Potassium
iodate 7782-50-5, Chlorine, processes 7783-06-4, Hydrogen sulfide,
processes 10024-97-2, Nitrogen oxide (N2O), processes
10028-15-6, Ozone, processes 10049-04-4, Chlorine dioxide
10102-43-9, Nitrogen oxide (NO), processes 10102-44-0
, Nitrogen oxide (NO2), processes 12624-32-7, Sulfur oxide
(surface treating agent; treatment of carbon nanostructure
using fluidization)
IT 102-54-5, Ferrocene
(treatment of carbon nanostructure using fluidization)
IT 64-17-5, Ethanol, processes 71-43-2, Benzene, processes 78-10-4,
TEOS 7782-41-4, Fluorine, processes 10026-04-7, Tetrachlorosilane
(treatment of carbon nanostructure using fluidization)
IT 9000-11-7, Carboxymethyl cellulose 25155-30-0, Sodium
dodecyl-benzene sulfonate
(treatment of carbon nanostructure using fluidization)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L106 ANSWER 7 OF 12 HCA COPYRIGHT 2010 ACS on STN
AN 141:413669 HCA Full-text
TI Fuel cell component with lyophilic surface
IN Extrand, Charles W.; Bhatt, Sanjiv M.; Monson, Loxie
PA Entegris, Inc., USA
SO PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004100287 | A2 | 20041118 | WO 2004-US13560 | 20040503 |
| | WO 2004100287 | A3 | 20050526 | | |
| | US 20040258975 | A1 | 20041223 | US 2004-837241 | 20040430 |
| PRAI | US 2003-468213P | P | 20030505 | | |

US 2004-837241 A 20040430

AB A fuel cell component with surfaces having improved lyophilicity is disclosed so that liq. on the component adheres closely to the surface in relatively flat droplets or sheets. The lyophilic surfaces may be formed by cold plasma or UV light treatment of the component. The lyophilic surfaces may be selectively provided on crit. areas of the component, such as for example on flow channel wall surfaces of bipolar plates and membrane electrode assemblies, thereby inhibiting liq. blocking of the flow channels during operation of the fuel cell.

IT 9003-53-6, Polystyrene
(fuel cell component with lyophilic surface)

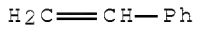
RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

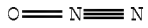
CMF C8 H8



IT 10024-97-2, Nitrous oxide, uses
(process gas; fuel cell component with lyophilic surface)

RN 10024-97-2 HCA

CN Nitrogen oxide (N2O) (CA INDEX NAME)



IC ICM H01M

CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 38

IT Nanotubes
(carbon, filler; fuel cell component with lyophilic surface)

IT 57-13-6, Urea, uses 100-42-5D, Styrene, block copolymers, with olefins 126-99-8, Chloroprene 131-17-9, Diallyl phthalate 9002-84-0, Polytetrafluoroethylene 9002-86-2, POlyvinyl chloride 9003-17-2, Polybutadiene 9003-31-0, Polyisoprene 9003-53-6, Polystyrene 24937-79-9, Pvdf 25778-04-5 413569-08-1, uses
(fuel cell component with lyophilic surface)

IT 7440-44-0, Carbon, uses
(nanotubes, filler; fuel cell component with lyophilic surface)

IT 56-23-5, Carbon tetrachloride, uses 75-21-8, Ethylene oxide, uses 107-18-6, Allyl alcohol, uses 107-21-1, Ethylene glycol, uses 115-10-6, Methyl ether 124-38-9, Carbon dioxide, uses 630-08-0, Carbon monoxide, uses 7440-37-1, Argon, uses 7446-09-5, Sulfur

oxide, uses 7664-41-7, Ammonia, uses 7727-37-9, Nitrogen, uses 7782-44-7, Oxygen, uses 7782-50-5, Chlorine, uses 10024-97-2, Nitrous oxide, uses 10028-15-6, Ozone, uses 10049-04-4, Chlorine dioxide 11104-93-1, Nitrogen oxide, uses
(process gas; fuel cell component with lyophilic surface)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 8 OF 12 HCA COPYRIGHT 2010 ACS on STN

AN 141:266048 HCA Full-text

TI Medical implants with carbon-containing surfaces that are functionalized

PA Blue Membranes GmbH, Germany

SO Ger. Gebrauchsmusterschrift, 18 pp.
CODEN: GGXXFR

DT Patent

LA German

FAN.CNT 10

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 202004009061 | U1 | 20040916 | DE 2004-202004009061 | 20040528 |
| | DE 10324415 | A1 | 20041216 | DE 2003-10324415 | 20030528 |
| | DE 10333098 | A1 | 20050210 | DE 2003-10333098 | 20030721 |
| | DE 10333099 | A1 | 20050210 | DE 2003-10333099 | 20030721 |
| PRAI | DE 2003-10324415 | A1 | 20030528 | | |
| | DE 2003-10333098 | A1 | 20030721 | | |
| | DE 2003-10333099 | A1 | 20030721 | | |

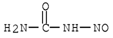
AB The invention concerns medical implants with carbon-contg. surfaces that are functionalized; the surfaces are prepd. by (a) prepg. a medical implant with a carbon-contg. surface; (b) activation of the carbon layer by creating porosity; (c) functionalization of the activated, carbon-contg. layer. The carbon layer can be prepd. by pyrolysis, CVD, PVD, sputtering, ion implantation. The medical devices are prepd. from carbon, carbon-composite material, glass, ceramics, glass fibers, carbon fibers, metals, stainless steel, titanium, tantalum, platinum, nitinol, alloys, artificial bone, minerals, and their combinations. Artificial blood vessels, stents, coronary stents, peripheral stents, orthopedic implants, artificial hearts and heart valves, artificial bones and joints are prepd. The carbon layer is activated with oxidn. or reducing agents in the presence of air, oxygen, nitrogen monoxide, oxidative acids; heat and/or ultrasound can be applied. The activated implant surfaces are functionalized with drugs, microorganisms, plant, animal or human cells. The invention also concerns controlled-release implanted drug delivery systems.

IT 10102-43-9, Nitrogen monoxide, biological studies
(medical implants with carbon-contg. surfaces that are functionalized)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IT   9004-34-6D, Cellulose, derivs. 9012-76-4, Chitosan
     13010-20-3, Nitrosourea
        (medical implants with carbon-contg. surfaces that are
        functionalized)
RN   9004-34-6  HCA
CN   Cellulose  (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9012-76-4  HCA
CN   Chitosan  (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   13010-20-3  HCA
CN   Urea, N-nitroso-  (CA INDEX NAME)



IC   ICM  A61L027-50
CC   63-7 (Pharmaceuticals)
IT   Drug delivery systems
        (nanocapsules; medical implants with carbon-contg.
        surfaces that are functionalized)
IT   7440-21-3, Silicon, biological studies   7440-44-0, Carbon, biological
     studies   7782-44-7, Oxygen, biological studies 10102-43-9,
     Nitrogen monoxide, biological studies
        (medical implants with carbon-contg. surfaces that are
        functionalized)
IT   50-02-2, Dexamethasone   50-23-7, Hydrocortisone   50-24-8,
     Prednisolone   50-56-6, Oxytocin, biological studies   50-78-2,
     Acetylsalicylic acid   51-41-2, Norepinephrine   51-43-4, Epinephrine
     51-45-6, Histamine, biological studies   51-61-6, Dopamin, biological
     studies   52-53-9, Verapamil   53-03-2, Prednisone   53-06-5,
     Cortisone   53-86-1, Indomethacin   54-05-7, Chloroquine   56-23-5,
     Carbon tetrachloride, biological studies   56-54-2, Quinidine
     56-75-7, Chloramphenicol   57-22-7, Vincristin   57-41-0, Phenytoin
     57-62-5   57-92-1, Streptomycin, biological studies   58-14-0,
     Pyrimethamine   58-61-7, Adenosine, biological studies   59-05-2,
     Methotrexate   59-30-3, Folic acid, biological studies   60-54-8,
     Tetracycline   60-54-8D, Tetracycline, derivs.   61-33-6, Penicillin
     G, biological studies   61-68-7, Mefenamic acid   62-55-5,
     Thioacetamide   63-74-1, Sulfonamide   64-17-5, Ethanol, biological
     studies   67-96-9, Dihydrotachysterol   68-35-9, Sulfadiazine
     69-53-4, Ampicillin   70-18-8, Glutathione, biological studies
     71-63-6, Digitoxin   79-10-7D, Acrylic acid, esters, polymers
     79-41-4D, Methacrylic acid, esters, polymers   79-57-2,
     Oxytetracycline   80-08-0, Dapson   83-43-2, Methylprednisolone
     87-08-1, Penicillin V   108-05-4D, Vinylacetate, copolymers with

phthalates   114-07-8, Erythromycin   118-42-3, Hydroxychloroquine
119-04-0, Framycetin   120-73-0D, Purine, derivs.   124-94-7,
Triamcinolone   127-07-1, Hydroxycarbamide   127-31-1, Fludrocortisone
130-95-0D, Quinine, derivs.   137-58-6, Lidocaine   140-64-7,
Pentamidine diisethionate   154-21-2, Lincomycin   289-95-2D,
Pyrimidine, derivs.   302-79-4, Tretinoin   356-12-7, Fluocinonide
361-37-5   365-26-4, Oxilofrine   370-14-9, Pholedrine   378-44-9,
Betamethasone   382-67-2, Desoximetasone   443-48-1, Metronidazol
466-06-8   484-23-1, Dihydralazin   500-92-5, Proguanil   511-12-6,
Dihydroergotamine   525-66-6, Propranolol   536-21-0, Norfenefrine
552-94-3, Salsalate   555-30-6, Methyldopa   564-25-0, Doxycycline
586-06-1, Orciprenaline   630-60-4, Ouabain   638-94-8, Desonide
644-62-2   660-27-5, Diisopropyl amine dichloroacetate   709-55-7,
Etilefrine   738-70-5, Trimethoprim   768-94-5, Amantadine   807-38-5,
Fluocinolone   865-21-4, Vinblastin   1066-17-7, Colistin   1344-28-1,
Alumina, biological studies   1393-87-9, Fusafungin   1403-66-3,
Gentamicin   1404-00-8, Mitomycin   1404-04-2, Neomycin   1404-26-8,
Polymyxin-B   1404-90-6, Vancomycin   1406-05-9, Penicillin
1524-88-5, Flurandrenolide   1695-77-8, Spectinomycin   1951-25-3,
Amiodarone   2589-47-1, Prajmaliumbitartrate, biological studies
2809-21-4, Etidronic acid   3056-17-5, Stavudine   3093-35-4,
Halcinonide   3385-03-3, Flunisolide   3737-09-5, Disopyramide
3930-20-9, Sotalol   4360-12-7, Ajmalin   4419-39-0, Beclomethasone
4428-95-9, Foscarnet   4828-27-7, Clocortolone   4936-47-4, Nifuratel
5104-49-4, Flurbiprofen   5355-48-6   6452-71-7, Oxprenolol
6990-06-3, Fusidinic acid   7440-02-0, Nickel, biological studies
7440-06-4, Platinum, biological studies   7440-22-4, Silver,
biological studies   7440-25-7, Tantalum, biological studies
7440-32-6, Titanium, biological studies   7440-41-7, Beryllium,
biological studies   7440-48-4, Cobalt, biological studies
7440-50-8, Copper, biological studies   7481-89-2, Zalcitabine
7542-37-2, Paromomycin   7631-86-9, Silica, biological studies
7681-49-4, Sodium fluoride, biological studies   8001-27-2, Hirudin
8025-81-8, Spiramycin   8067-24-1, Dihydroergotoxine methane sulfonate
9000-94-6, Antithrombin   9001-90-5, Plasmin   9002-01-1,
Streptokinase   9002-60-2, Corticotropin, biological studies
9002-71-5, Thyrotrophin   9002-72-6, Growth hormone   9002-88-4,
Polyethylene   9002-89-5, Polyvinylalcohol   9003-07-0, Polypropylene
9003-28-5, Polybutene   9003-39-8, Polyvinylpyrrolidone
9004-34-6D, Cellulose, derivs.   9004-54-0, Dextran,
biological studies   9004-61-9, Hyaluronic acid   9004-64-2,
Hydroxypropylcellulose   9004-65-3, Hydroxypropylmethylcellulose
9004-67-5, Methylcellulose   9005-25-8, Starch, biological studies
9005-49-6, Heparin, biological studies   9007-12-9, Calcitonin
9012-76-4, Chitosan   9013-20-1, Streptavidin   9039-53-6,
Urokinase   9061-61-4, NGF   10118-90-8, Minocycline   10163-15-2,
Disodium fluorophosphate   10596-23-3, Clodronic acid   11056-06-7,
Bleomycin   11096-26-7, Erythropoietin   11111-12-9, Cephalosporin
11128-99-7, Angiotensin II   12597-68-1, Stainless steel, biological
studies   12629-01-5, Somatropin   12683-48-6 13010-20-3,
Nitrosourea   13292-46-1, Rifampicin   13463-67-7, Titanium dioxide,
biological studies   14402-89-2, Nitroprusside sodium   14636-12-5,

Terlipressin 15307-86-5, Diclofenac 15663-27-1, Cisplatin 15686-71-2, Cefalexin 15687-27-1, Ibuprofen 15802-18-3 16662-47-8, Gallopamil 16679-58-6, Desmopressin 16846-24-5, Josamycin 18323-44-9, Clindamycin 19216-56-9, Prazosin 19387-91-8, Tinidazol 19388-87-5, Taurolidine 20830-75-5, Digoxin 20830-81-3, Daunorubicin 21256-18-8, Oxaprozin 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22254-24-6, Ipratropium bromide 22494-42-4, Diflunisal 23155-02-4, Fosfomycin 23214-92-8, Doxorubicin 24937-78-8, Polyethylenevinyl acetate 25014-41-9, 2-Propenenitrile, homopolymer 25038-59-9, Polyethyleneterephthalate, biological studies 25122-41-2, Clobetasol 25190-06-1, Polytetramethylene glycol 25322-68-3, Polyethylene oxide 25322-69-4, Polypropylene oxide 25614-03-3, Bromocriptine 25953-19-9, Cefazolin 26009-03-0, Polyglycolide 26023-30-3, D,L-Lactic acid, homopolymer 26063-00-3, Polyhydroxybutyrate 26099-09-2, Polymaleic acid 26100-51-6, Polylactic acid 26171-23-3, Tolmetin 26202-08-4, Polyglycolide 26744-04-7 26787-78-0, Amoxicillin 26807-65-8, Indapamide 26844-12-2, Indoramin 29122-68-7, Atenolol 29679-58-1, Fenoprofen 30209-88-2 30516-87-1, Zidovudine 30578-37-1, Amezinium methyl sulfate 30685-43-9, Metildigoxin 31621-87-1, Polydioxanone 31828-71-4, Mexiletine 32986-56-4, Tobramycin 33069-62-4, Paclitaxel 33515-09-2, Gonadorelin 33774-52-6, Detajmiumbitartrate, biological studies 34346-01-5, Glycolic acid-lactic acid copolymer 34368-04-2, Dobutamine 34661-75-1, Urapidil 35607-66-0, Cefoxitin 36322-90-4, Piroxicam 36703-88-5 36791-04-5, Ribavirin 36877-68-6D, Nitroimidazole, derivs. 37203-62-6, Blood coagulation factor XIIa 37517-28-5, Amikacin 38000-06-5, Polylysine 38194-50-2, Sulindac 38304-91-5, Minoxidil 39562-70-4, Nitrendipine 40391-99-9 41340-25-4, Etodolac 41575-94-4, Carboplatin 42399-41-7, Diltiazem 42794-76-3, Midodrine 42924-53-8, Nabumetone 50370-12-2, Cefadroxil
(medical implants with carbon-contg. surfaces that are functionalized)

L106 ANSWER 9 OF 12 HCA COPYRIGHT 2010 ACS on STN
AN 140:79159 HCA Full-text
TI Particles from supercritical fluid extraction of emulsion
IN Chattopadhyay, Pratibhash; Shekunov, Boris Y.; Seitzinger, Jeffrey S.; Huff, Robert W.
PA Ferro Corporation, USA
SO PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004004862 | A1 | 20040115 | WO 2003-US19633 | 20030620 |
| | US 20040026319 | A1 | 20040212 | US 2003-423492 | 20030425 |
| | US 6998051 | B2 | 20060214 | | |
| | CA 2483563 | A1 | 20040115 | CA 2003-2483563 | 20030620 |

| | | | | | |
|---|---|---|---|---|---|
| | CA 2483563 | C | 20080826 | | |
| | AU 2003281210 | A1 | 20040123 | AU 2003-281210 | 20030620 |
| | EP 1551523 | A1 | 20050713 | EP 2003-742125 | 20030620 |
| | EP 1551523 | B1 | 20070808 | | |
| | CN 1665576 | A | 20050907 | CN 2003-815675 | 20030620 |
| | CN 1318116 | C | 20070530 | | |
| | JP 2005531408 | T | 20051020 | JP 2004-519622 | 20030620 |
| | JP 4421475 | B2 | 20100224 | | |
| | AT 369198 | T | 20070815 | AT 2003-742125 | 20030620 |
| | ES 2289308 | T3 | 20080201 | ES 2003-742125 | 20030620 |
| PRAI | US 2002-393904P | P | 20020703 | | |
| | US 2003-445944P | P | 20030207 | | |
| | US 2003-423492 | A | 20030425 | | |
| | WO 2003-US19633 | W | 20030620 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A method of producing microparticles and nanoparticles of a solute via the extn. of solvent, having the solute dissolved therein, from an emulsion fed to a vessel using a supercrit. fluid also fed to the vessel. The solute to be pptd. is dissolved in the solvent to form a soln., and the soln. is dispersed in an immiscible or partially miscible liq. to form an emulsion which is fed by a tube to the vessel. The particles are produced via the extn. of the solvent from the emulsion using the supercrit. fluid in the vessel. The process can produce an aq. suspension of particles that are substantially insol. in water, and the solvents used in the process to form the emulsion initially can be recovered and recycled from vessel ports at the top.

IT 9003-53-6, Polystyrene
(nanoparticle formation of; nanoparticles from supercrit. fluid extn. of emulsion)

RN 9003-53-6 HCA

CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

CRN 100-42-5

CMF C8 H8

$H_2C=CH-Ph$

IT 10024-97-2, Nitrous oxide, processes
(particles from supercrit. from supercrit. fluid extn. of emulsion)

RN 10024-97-2 HCA

CN Nitrogen oxide (N2O) (CA INDEX NAME)

$O=N\equiv N$

IC   ICM  B01D011-04
CC   48-6 (Unit Operations and Processes)
     Section cross-reference(s): 17, 38, 45, 50, 64, 66
ST   particle supercrit fluid emulsion extn nanoparticle CO2
     solvent colloid
IT   Natural products, pharmaceutical
        (nanoparticle formation of animal or plant exts.;
        particles from supercrit. from supercrit. fluid extn. of emulsion)
IT   Polymers, processes
        (nanoparticle formation of precursors; particles from
        supercrit. from supercrit. fluid extn. of emulsion)
IT   Virus
        (nanoparticle formation of viral materials; particles
        from supercrit. from supercrit. fluid extn. of emulsion)
IT   Agrochemicals
     Antibiotics
     Biodegradable materials
     Catalysts
     Cosmetics
     Diagnostic agents
     Dietary supplements
     Drugs
     Dyes
     Explosives
     Insecticides
     Paints
     Pigments, nonbiological
        (nanoparticle formation of; particles from supercrit.
        from supercrit. fluid extn. of emulsion)
IT   Alkaloids, processes
     Antigens
     Enzymes, processes
     Lipids, processes
     Nucleic acids
     Peptides, processes
     Polymers, processes
     Proteins
     Toxins
     Vitamins
        (nanoparticle formation of; particles from supercrit.
        from supercrit. fluid extn. of emulsion)
IT   Emulsions
       Nanoparticles
     Precipitation (chemical)
     Supercritical fluids
     Tanks (containers)
        (nanoparticles from supercrit. fluid extn. of emulsion)
IT   Drug delivery systems
        (nanoparticles, nanoparticle formation of;
        particles from supercrit. from supercrit. fluid extn. of emulsion)
IT   Nanostructures
     Spheres

(nanospheres; particles from supercrit. from supercrit. fluid extn. of emulsion)
IT Solvents
(non-polar and partially water sol.; nanoparticles from supercrit. fluid extn. of emulsion)
IT Extraction
(supercrit.; nanoparticles from supercrit. fluid extn. of emulsion)
IT 9003-53-6, Polystyrene
(nanoparticle formation of; nanoparticles from supercrit. fluid extn. of emulsion)
IT 555-44-2, Tripalmitin 604-35-3, Cholesterol Acetate 33434-24-1, EUDRAGIT RS 34346-01-5, Glycolic Acid-Lactic acid copolymer
(nanoparticle formation of; particles from supercrit. from supercrit. fluid extn. of emulsion)
IT 67-66-3, Chloroform, processes 75-46-7, Trifluoromethane 108-88-3, Toluene, processes 115-10-6, Dimethyl ether 141-78-6, Ethyl Acetate, processes 10024-97-2, Nitrous oxide, processes
(particles from supercrit. from supercrit. fluid extn. of emulsion)
OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 10 OF 12 HCA COPYRIGHT 2010 ACS on STN
AN 133:122599 HCA Full-text
TI Carbide and oxycarbide based compositions and nanorods
IN Moy, David; Niu, Chun-Ming; Ma, Jun; Willey, Jason M.
PA Hyperion Catalysis International, Inc., USA
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 5

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2000041808 | A1 | 20000720 | WO 2000-US753 | 20000112 |
| | CA 2359336 | A1 | 20000720 | CA 2000-2359336 | 20000112 |
| | EP 1152827 | A1 | 20011114 | EP 2000-903266 | 20000112 |
| | JP 2002534351 | T | 20021015 | JP 2000-593411 | 20000112 |
| | AU 764311 | B2 | 20030814 | AU 2000-25040 | 20000112 |
| | EP 1920837 | A2 | 20080514 | EP 2007-122314 | 20000112 |
| | EP 1920837 | A3 | 20081119 | | |
| | KR 907214 | B1 | 20090710 | KR 2001-708727 | 20000112 |
| | MX 2001007030 | A | 20020311 | MX 2001-7030 | 20010711 |
| PRAI | US 1999-115735P | P | 19990112 | | |
| | EP 2000-903266 | A3 | 20000112 | | |
| | WO 2000-US753 | W | 20000112 | | |

AB Compns. including oxycarbide-based nanorods and/or carbide-based nanorods and/or carbon nanotubes bearing carbides and oxycarbides and methods of making the same are provided. Rigid porous structures including oxycarbide-based nanorods and/or carbide based nanorods and/or carbon nanotubes bearing

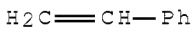
carbides and oxycarbides and methods of making the same are also provided. The compns. and rigid porous structures of the invention can be used either as catalyst and/or catalyst supports in fluid phase catalytic chem. reactions. Processes for making supported catalyst for selected fluid phase catalytic reactions are also provided. The fluid phase catalytic reactions catalyzed include hydrogenation, hydrodesulfurization, hydrodenitrogenation, hydrodemetallization, hydrodeoxygenation, hydrodearomatization, dehydrogenation, hydrogenolysis, isomerization, alkylation, dealkylation and transalkylation.

IT 9003-53-6, Polystyrene 9004-34-6, Cellulose, reactions
(carbide and oxycarbide based compns. and nanorods)

RN 9003-53-6 HCA
CN Benzene, ethenyl-, homopolymer (CA INDEX NAME)

CM 1

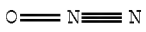
CRN 100-42-5
CMF C8 H8



RN 9004-34-6 HCA
CN Cellulose (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 10024-97-2, Nitrous oxide, uses 10102-43-9, Nitric oxide, uses 10102-44-0, Nitrogen dioxide, uses
(oxidant; carbide and oxycarbide based compns. and nanorods
)

RN 10024-97-2 HCA
CN Nitrogen oxide (N2O) (CA INDEX NAME)



RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

RN 10102-44-0 HCA
CN Nitrogen oxide (NO2) (CA INDEX NAME)

IC ICM B01J027-22
ICS C01B013-14; C03B025-00
CC 51-4 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 67
ST carbide oxycarbide nanorod catalyst
IT Alkylation catalysts
Dealkylation catalysts
Dehydrogenation catalysts
Hydrogenation catalysts
Isomerization catalysts
Transalkylation catalysts
(carbide and oxycarbide based compns. and nanorods)
IT Carbides
(carbide and oxycarbide based compns. and nanorods)
IT Carbohydrates, reactions
Phenolic resins, reactions
Polyamides, reactions
Polyesters, reactions
Polyurethanes, reactions
(carbide and oxycarbide based compns. and nanorods)
IT Nanotubes
(carbon; carbide and oxycarbide based compns. and nanorods
)
IT Catalyst supports
Catalysts
Hydrodesulfurization
Hydrogenolysis
(fluid phase catalytic chem. reactions; carbide and oxycarbide
based compns. and nanorods)
IT Carbides
Carbides
Oxides (inorganic)
Oxides (inorganic), uses
(oxycarbides; carbide and oxycarbide based compns. and
nanorods)
IT 7439-88-5, Iridium, uses 7439-98-7, Molybdenum, uses 7440-03-1,
Niobium, uses 7440-04-2, Osmium, uses 7440-05-3, Palladium, uses
7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-18-8,
Ruthenium, uses 7440-25-7, Tantalum, uses 7440-32-6, Titanium,
uses 7440-33-7, Tungsten, uses 7440-58-6, Hafnium, uses
7440-62-2, Vanadium, uses 7440-67-7, Zirconium, uses 12070-10-9,
Vanadium carbide 12070-12-1, Tungsten carbide 12627-57-5,
Molybdenum carbide 15855-70-6, Ammonium tungstate
(carbide and oxycarbide based compns. and nanorods)
IT 409-21-2, Silicon carbide, reactions 1343-93-7, Phosphotungstic acid
9002-88-4, Polyethylene 9003-53-6, Polystyrene
9004-34-6, Cellulose, reactions 9016-00-6,

Poly(dimethylsiloxane) 12027-67-7, Ammonium molybdate 14284-90-3,
Molybdenum acetyl acetonate
(carbide and oxycarbide based compns. and nanorods)

IT 124-38-9, Carbon dioxide, uses 7732-18-5, Water, uses 7782-44-7,
Oxygen, uses 10024-97-2, Nitrous oxide, uses
10102-43-9, Nitric oxide, uses 10102-44-0, Nitrogen
dioxide, uses
(oxidant; carbide and oxycarbide based compns. and nanorods
)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 11 OF 12 HCA COPYRIGHT 2010 ACS on STN

AN 130:29221 HCA Full-text

TI Preparation of solid porous matrixes for pharmaceutical uses

IN Unger, Evan C.

PA ImaRx Pharmaceutical Corp., USA

SO PCT Int. Appl., 139 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 6

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 9851282 | A1 | 19981119 | WO 1998-US9570 | 19980512 |
| | US 20020039594 | A1 | 20020404 | US 1998-75477 | 19980511 |
| | AU 9873787 | A | 19981208 | AU 1998-73787 | 19980512 |
| | EP 983060 | A1 | 20000308 | EP 1998-921109 | 19980512 |
| | US 20010018072 | A1 | 20010830 | US 2001-828762 | 20010409 |
| | US 20040091541 | A1 | 20040513 | US 2003-622027 | 20030716 |
| PRAI | US 1997-46379P | P | 19970513 | | |
| | US 1998-75477 | A | 19980511 | | |
| | WO 1998-US9570 | W | 19980512 | | |
| | US 2001-828762 | B1 | 20010409 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A solid porous matrix formed from a surfactant, a solvent, and a bioactive agent is described. Thus, amphotericin nanoparticles were prepd. by using ZrO2 beads and a surfactant. The mixt. was milled for 24 h.

IT 9004-34-6, Cellulose, biological studies 10024-97-2,
Nitrogen oxide (N2O), biological studies
(prepn. of solid porous matrixes for pharmaceutical uses)

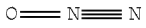
RN 9004-34-6 HCA

CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 10024-97-2 HCA

CN Nitrogen oxide (N2O) (CA INDEX NAME)



IC ICM A61K009-10
CC 63-6 (Pharmaceuticals)
IT Drug delivery systems
(nanoparticles; prepn. of solid porous matrixes for pharmaceutical uses)
IT 9015-82-1 9028-31-3, Aldose reductase 125978-95-2, Nitric oxide synthase
(inhibitors; prepn. of solid porous matrixes for pharmaceutical uses)
IT 661-97-2 677-56-5, Propane-1,1,1,2,2,3-hexafluoro 678-26-2, Perfluoropentane 684-16-2, Hexafluoroacetone 685-63-2, Hexafluoro-1,3-butadiene 689-97-4, Vinyl acetylene 692-50-2, Hexafluoro-2-butyne 752-61-4, Digitalin 768-94-5, Amantadine 818-92-8, 3-FluoroPropylene 846-50-4, Temazepam 921-13-1, Chlorodinitromethane 927-84-4, Trifluoromethyl peroxide 928-45-0, Butyl nitrate 968-93-4, Testolactone 987-24-6, Betamethasone acetate 990-73-8, Fentanyl citrate 1070-11-7, Ethambutol hydrochloride 1119-94-4, Lauryltrimethylammonium bromide 1119-97-7, Myristyltrimethylammonium bromide 1172-18-5 1177-87-3, Dexamethasone acetate 1191-96-4, EthylCyclopropane 1306-06-5, Hydroxylapatite 1397-89-3, Amphotericin B 1400-61-9, Nystatin 1404-04-2, Neomycin 1405-37-4, Capreomycin sulfate 1493-03-4, Difluoroiodomethane 1597-82-6, Paramethasone acetate 1630-94-0, 1,1-DimethylCyclopropane 1691-13-0, 1,2-Difluoroethylene 1722-62-9, Mepivacaine hydrochloride 1759-88-2 1867-66-9, Ketamine hydrochloride 2022-85-7, Flucytosine 2068-78-2, Vincristine sulfate 2314-97-8, IodotriFluoromethane 2366-52-1, 1-Fluorobutane 2375-03-3, Methylprednisolone sodium succinate 2392-39-4, Dexamethasone sodium phosphate 2511-95-7, 1,2-DimethylCyclopropane 2551-62-4, Sulfur hexafluoride 3116-76-5, Dicloxacillin 3385-03-3, Flunisolide 3458-28-4, Mannose 3485-14-1, Cyclacillin 3511-16-8, Hetacillin 3529-04-2, Benzyldimethylhexadecylammonium bromide 3810-74-0, Streptomycin sulfate 3858-89-7, Chloroprocaine hydrochloride 4185-80-2, Methotrimeprazine hydrochloride 4428-95-9, Foscarnet 4431-00-9, Aurintricarboxylic acid 4697-36-3, Carbenicillin 4786-20-3, Crotononitrile 4901-75-1, 3-Ethyl-3-methyldiaziridine 5534-09-8, Beclomethasone dipropionate 5536-17-4, Arabinosyl adenine 5611-51-8, Triamcinolone hexacetonide 5714-22-7, Sulfur fluoride (S2F10) 6000-74-4, Hydrocortisone sodium phosphate 7281-04-1, Benzyldimethyldodecylammonium bromide 7297-25-8, Erythritol tetranitrate 7439-89-6, Iron, biological studies 7440-01-9, Neon, biological studies 7440-06-4D, Platinum, compds., biological studies 7440-15-5, Rhenium, biological studies 7440-24-6, Strontium, biological studies 7440-26-8, Technetium, biological studies 7440-48-4, Cobalt, biological studies 7440-63-3, Xenon, biological studies 7440-65-5, Yttrium, biological studies 7601-55-0, Metocurine iodide 7637-07-2, biological studies 7647-14-5, Sodium chloride, biological studies 7681-14-3, Prednisolone tebutate 7727-37-9, Nitrogen, biological studies 7728-73-6 7782-41-4, Fluorine, biological studies 7782-44-7, Oxygen, biological studies 7783-82-6, Tungsten hexafluoride

9001-75-6, Pepsin 9001-78-9, Alkaline phosphatase 9002-01-1, Streptokinase 9002-04-4, Thrombin 9002-60-2, Adrenocorticotropic hormone, biological studies 9002-61-3 9002-72-6, Growth hormone 9002-79-3, Melanocyte stimulating hormone 9002-89-5, Poly(vinyl alcohol) 9003-11-6 9003-39-8, PVP 9004-10-8, Insulin, biological studies 9004-34-6, Cellulose, biological studies
9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9004-67-5, Methyl Cellulose 9005-25-8, Starch, biological studies 9005-27-0, HETA-starch 9005-32-7, Alginic acid 9005-49-6, Heparin, biological studies 9005-64-5, Polyoxyethylene sorbitan monolaurate 9005-65-6, Polyoxyethylene sorbitan monooleate 9005-66-7, Polyoxyethylene sorbitan monopalmitate 9005-67-8, Polyoxyethylene sorbitan monostearate 9005-71-4, Polyoxyethylene sorbitan tristearate 9007-12-9, Calcitonin 9007-92-5, Glucagon, biological studies 9011-14-7, PMMA 9011-97-6, Cholecystokinin 9015-68-3, Asparaginase 9015-71-8, Corticotropin releasing factor 9036-19-5, Octoxynol 9039-53-6, Urokinase 9061-61-4, Nerve growth factor
10024-97-2, Nitrogen oxide (N2O
), biological studies 11000-17-2, Vasopressin 11056-06-7, Bleomycin 11096-26-7, Erythropoietin 13264-41-0, Cetyldimethylethylammonium chloride 13292-46-1, Rifampin 13311-84-7, Flutamide 13647-35-3, Trilostane 15500-66-0, Pancuronium bromide 15663-27-1, Cisplatin 15686-71-2, Cephalexin 15687-27-1, Ibuprofen 16009-13-5, Hemin 16136-85-9 17598-65-1, Deslanoside 18010-40-7, Bupivacaine hydrochloride 18323-44-9, Clindamycin 18378-89-7, Plicamycin 18773-88-1, Benzyldimethyltetradecylammonium bromide 20187-55-7, Bendazac 20274-91-3 20830-75-5, Digoxin 21829-25-4, Nifedipine 22204-53-1, Naproxen 22494-42-4, Diflunisal 22916-47-8, Miconazole 23110-15-8, Fumagillin 23541-50-6, Daunorubicin hydrochloride 24356-66-9 24764-97-4, 2-Bromobutyraldehyde 24991-23-9 25104-18-1, Polylysine 25151-81-9, Prostanoic acid 25316-40-9, Adriamycin 25322-68-3 25322-68-3D, PEG, ethers 25322-69-4, Polypropylene glycol 25513-46-6, Polyglutamic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26171-23-3, Tolmetin 26780-50-7, Glycolide-lactide copolymer 26787-78-0, Amoxicillin 26839-75-8, Timolol 28911-01-5, Triazolam 29121-60-6, Vaninolol 29767-20-2, Teniposide 30516-87-1, Azidothymidine 31637-97-5, Etofibrate 33069-62-4, Taxol 33125-97-2, Etomidate 33419-42-0, Etoposide 33507-63-0, Substance p 34077-87-7, DiChlorotrifluoroethane 34787-01-4, Ticarcillin 36322-90-4 36637-19-1, Etidocaine hydrochloride 36791-04-5, Ribavirin 38000-06-5, Polylysine 38194-50-2, Sulindac 38821-53-3, Cephradine 39391-18-9, Cyclooxygenase 41575-94-4, Carboplatin 42399-41-7, Diltiazem 47141-42-4, Levobunolol 50370-12-2, Cefadroxil 50402-72-7, Piperidine-2,3,6-trimethyl 50700-72-6, Vecuronium bromide 50972-17-3, Bacampicillin 51264-14-3, Amsacrine 52205-73-9, Estramustine phosphate sodium 52365-63-6, Dipivefrin 53045-71-9, 1-Pentene-3-bromo 53188-07-1, Trolox 53678-77-6, Muramyldipeptide 53994-73-3, Cefaclor 54965-24-1, Tamoxifen citrate 55142-85-3, Ticlopidine 57223-18-4, 1-Nonen-3-yne 59277-89-3, Acyclovir 59467-96-8, Midazolam

hydrochloride 60118-07-2, Endorphin 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 62232-46-6, Bifemelane hydrochloride 62571-86-2, Captopril 62683-29-8, Colony stimulating factor 63659-18-7, Betaxolol 65277-42-1, Ketoconazole 68302-57-8 68367-52-2, Sorbinil 69279-90-9, Ansamitocin 72702-95-5, Ponalrestat 73218-79-8, Apraclonidine hydrochloride 73984-11-9 74381-53-6, Leuprolide acetate 74790-08-2, Spiroplatin 75847-73-3, Enalapril 76547-98-3, Lisinopril 77181-69-2, Sorivudine 80755-87-9 81486-22-8, Nipradilol 82159-09-9, Epalrestat 82410-32-0, Ganciclovir 82964-04-3, Tolrestat 83869-56-1, Granulocyte macrophage colony stimulating factor 86090-08-6, Angiostatin 88096-12-2 89149-10-0, 15-Deoxyspergualin 98023-09-7 99896-85-2 106956-32-5, Oncostatin M 113852-37-2, Cidofovir 116632-15-6, 1.2.3-Nonadecanetricarboxylic acid 2-hydroxytrimethylester 119813-10-4, Carzelesin 120279-96-1, Dorzolamide 120287-85-6D, Cetrorelix, derivs. 121181-53-1, Filgrastim 124389-07-7, Muramyltripeptide 127464-60-2, Vascular endothelial growth factor 127984-74-1, Somatuline 130209-82-4, Latanoprost 139639-23-9, Tissue plasminogen activator 141436-78-4, Protein kinase c

(prepn. of solid porous matrixes for pharmaceutical uses)

OSC.G 17 THERE ARE 17 CAPLUS RECORDS THAT CITE THIS RECORD (17 CITINGS)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L106 ANSWER 12 OF 12 HCA COPYRIGHT 2010 ACS on STN

AN 116:231308 HCA Full-text

OREF 116:39063a,39066a

TI Photolytic interface for HPLC-chemiluminescence detection of nonvolatile N-nitroso compounds

IN Conboy, James J.; Hotchkiss, Joseph H.

PA Cornell Research Foundation, Inc., USA

SO U.S., 12 pp.
CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 5094815 | A | 19920310 | US 1988-195923 | 19880518 |
| | US 5366900 | A | 19941122 | US 1993-10578 | 19930128 |
| PRAI | US 1988-195923 | A3 | 19880518 | | |
| | US 1991-798490 | B1 | 19911224 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

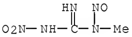
AB Described are a photolytic interface app. and its use in series between a HPLC and a chemiluminescence detector for the detection of trace (nanogram) amts. of N-nitroso compds. including N-nitrosamides and non-volatile N-nitrosamines in aq.-based fluid samples. HPLC effluent contg. sepd. N-nitrosoamino acids and N-nitrosoamino amides is introduced into a glass coil with a purge stream of He and irradiated with UV light. NO cleaved by photolysis is rapidly sepd. from solvent through a series of cold traps and

carried by the He into the reaction chamber of a chemiluminescence detector. Biol. matrixes, such as urine and gastric fluid, can be analyzed directly at high sensitivity without concn. and/or extn. Figures show diagrams of the photolytic interface app. and the total app. system incorporating the interface app. as well as chromatograms showing resoln. of std.N-nitroso compds. in std. solns. and in urine and porcine gastric juice samples.

IT 70-25-7
(molar response ratios of, in analyzer having HPLC and photolytic interface and chemiluminescence detector)

RN 70-25-7 HCA

CN Guanidine, N-methyl-N'-nitro-N-nitroso- (CA INDEX NAME)




IC ICM G01N021-76

INCL 422052000

CC 9-1 (Biochemical Methods)
Section cross-reference(s): 80

IT Helium-group gases, uses
(in photolytic interface app. for carrying nitric oxide formed from HPLC-sepd. N-nitroso compds. to chemiluminescence detector)

IT 7440-59-7, Helium, uses
(in photolytic interface app. for carrying nitric oxide formed from HPLC-sepd. N-nitroso compds. to chemiluminescence detector)

IT 62-75-9, NDMA 70-25-7 684-93-5 759-73-9 3475-63-6, N-Nitrosotrimethylurea 7519-36-0, N-Nitrosoproline 13256-22-9, N-Nitrososarcosine 30310-80-6, N-Nitrosohydroxyproline 88381-44-6 103659-08-1
(molar response ratios of, in analyzer having HPLC and photolytic interface and chemiluminescence detector)

OSC.G 23 THERE ARE 23 CAPLUS RECORDS THAT CITE THIS RECORD (24 CITINGS)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L107 1-3 BIB ABS HITSTR HITIND

L107 ANSWER 1 OF 3 HCA COPYRIGHT 2010 ACS on STN

AN 142:435873 HCA Full-text

TI A medical device with nanofiber outer surface layer incorporating nitric oxide and poly(ethylenimine) diazeniumdiolate for insertion in to vascular system

IN Andersen, Erik; Smith, Daniel; Reneker, Darrell

PA Cube Medical A/S, Den.; The University of Akron

SO PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005039664 | A2 | 20050506 | WO 2004-US33949 | 20041014 |
| | WO 2005039664 | A3 | 20050630 | | |
| | EP 1691856 | A2 | 20060823 | EP 2004-795149 | 20041014 |
| | CN 1874799 | A | 20061206 | CN 2004-80032370 | 20041014 |
| | JP 2008539807 | T | 20081120 | JP 2006-535667 | 20041014 |
| | US 20070207179 | A1 | 20070906 | US 2006-595339 | 20061229 |
| PRAI | DK 2003-1514 | A | 20031014 | | |
| | US 2003-510520P | P | 20031014 | | |
| | DK 2003-1864 | A | 20031216 | | |
| | US 2003-529629P | P | 20031216 | | |
| | DK 2004-671 | A | 20040429 | | |
| | US 2004-566087P | P | 20040429 | | |
| | WO 2004-US33949 | W | 20041014 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A medical device, such as a guide wire, an embolization device, or a guide shaft for a micro-catheter, comprises a solid and/or non-expandable core member made from e.g. metal, such as tantalum, and an outer surface layer, which is formed by electrospun **nanofibers**. The outer surface layer may incorporate a pharmaceutically active substance, such as a nitric oxide (NO) donor for release in the vascular or neurovascular system of a living being. The NO donor may be incorporated in a polymer, such as a polymeric linear poly(ethylenimine) **diazeniumdiolate**.

IT **10102-43-9**, Nitric oxide, biological studies
(medical device with **nanofiber** outer surface layer incorporating nitric oxide and poly(ethylenimine) **diazeniumdiolate** for insertion in to vascular system)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM A61L029-00
CC 63-7 (Pharmaceuticals)
ST nitric oxide donor polyethylenimine **nanofiber** coating medical device; polyethylenimine **diazeniumdiolate** acid **nanofiber** medical embolization device
IT Embolism
(embolization; medical device with **nanofiber** outer surface layer incorporating nitric oxide and poly(ethylenimine) **diazeniumdiolate** for insertion in to vascular system)
IT Polyesters, biological studies
(lactide; medical device with **nanofiber** outer surface

layer incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT Coating materials
Drug delivery systems
Drugs
Nanofibers
(medical device with nanofiber outer surface layer
incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT Acids, biological studies
Collagens, biological studies
Fluoropolymers, biological studies
Polyurethanes, biological studies
Synthetic fibers
(medical device with nanofiber outer surface layer
incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT Synthetic polymeric fibers, biological studies
(polyethylenimine; medical device with nanofiber outer
surface layer incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT Medical goods
(stents; medical device with nanofiber outer surface
layer incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT Medical goods
(wires; medical device with nanofiber outer surface layer
incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT 10102-43-9, Nitric oxide, biological studies
(medical device with nanofiber outer surface layer
incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT 7440-25-7, Tantalum, biological studies 9002-84-0,
Polytetrafluoroethylene 26023-30-3,
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26680-10-4, Polylactide
(medical device with nanofiber outer surface layer
incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

IT 9002-98-6D, diazenium diolate derivs. 26913-06-4D,
Poly[imino(1,2-ethanediyl)], diazenium diolate derivs.
(nanofiber; medical device with nanofiber outer
surface layer incorporating nitric oxide and poly(ethylenimine)
diazeniumdiolate for insertion in to vascular system)

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 2 OF 3 HCA COPYRIGHT 2010 ACS on STN

AN 138:381586 HCA Full-text

TI Superoxide-dependent consumption of nitric oxide in biological media
may confound in vitro experiments

AU Keynes, Robert G.; Griffiths, Charmaine; Garthwaite, John
CS Cruciform Building, Wolfson Institute for Biomedical Research, University College London, London, WC1E 6BT, UK
SO Biochemical Journal (2003), 369(2), 399-406
CODEN: BIJOAK; ISSN: 0264-6021
PB Portland Press Ltd.
DT Journal
LA English
AB NO functions ubiquitously as a biol. messenger but was also implicated in various pathologies, a role supported by many reports that exogenous or endogenous NO can kill cells in tissue culture. In the course of expts. aimed at examg. the toxicity of exogenous NO towards cultured cells, the authors found that most of the NO delivered using a NONOate (diazeniumdiolate) donor was removed by reaction with the tissue-culture medium. Two NO-consuming ingredients were identified: Hepes buffer and, under lab. lighting, the vitamin riboflavin. In each case, the loss of NO was reversed by the addn. of superoxide dismutase. The effect of Hepes was obsd. over a range of NONOate concns. (producing up to 1 μM NO). Furthermore, from measurements of sol. guanylate cyclase activity, Hepes-dependent NO consumption remained significant at the low nanomolar NO concns. relevant to physiol. NO signaling. The combination of Hepes and riboflavin (in the light) acted synergistically to the extent that, instead of a steady-state concn. of about 1 μM being generated, NO was undetectable (<10 nM). Again, the consumption could be inhibited by superoxide dismutase. A scheme is proposed whereby a 'vicious cycle' of superoxide radical (O•.-2) formation occurs as a result of oxidn. of Hepes to its radical species, fuelled by the subsequent reaction of O•-2 with NO to form peroxynitrite (ONOO-). The inadvertent prodn. of ONOO- and other reactive species in biol. media, or the assocd. loss of NO, may contribute to the adverse effects, or otherwise, of NO in vitro.
IT 10102-43-9, Nitric oxide, biological studies
(superoxide, riboflavin, and buffer effect on NO consumption in biol. media)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 9-11 (Biochemical Methods)
IT 77-86-1, Tris buffer 83-88-5, Riboflavin, biological studies 7365-45-9, HEPES 9054-89-1, Superoxide dismutase 10102-43-9, Nitric oxide, biological studies 11062-77-4, Superoxide
(superoxide, riboflavin, and buffer effect on NO consumption in biol. media)
OSC.G 27 THERE ARE 27 CAPLUS RECORDS THAT CITE THIS RECORD (27 CITINGS)
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L107 ANSWER 3 OF 3 HCA COPYRIGHT 2010 ACS on STN

AN 134:300856 HCA Full-text

TI Nitric oxide-modified linear poly(ethylenimine) fibers for coating of medical devices

IN Smith, Daniel; Reneker, Darrell

PA University of Akron, USA

SO PCT Int. Appl., 13 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001026702 | A2 | 20010419 | WO 2000-US27769 | 20001006 |
| | WO 2001026702 | A3 | 20011213 | | |
| | US 6737447 | B1 | 20040518 | US 2000-571444 | 20000516 |
| | CA 2386765 | A1 | 20010419 | CA 2000-2386765 | 20001006 |
| | EP 1220694 | A2 | 20020710 | EP 2000-970658 | 20001006 |
| | EP 1220694 | B1 | 20030416 | | |
| | AT 237372 | T | 20030515 | AT 2000-970658 | 20001006 |
| | US 20040131753 | A1 | 20040708 | US 2003-738582 | 20031216 |
| | US 6855366 | B2 | 20050215 | | |
| PRAI | US 1999-158673P | P | 19991008 | | |
| | US 2000-571444 | A | 20000516 | | |
| | WO 2000-US27769 | W | 20001006 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A novel coating for medical devices provides nitric oxide delivery using **nanofibers** of linear poly(ethylenimine) **diazeniumdiolate**. Linear poly(ethylenimine) **diazeniumdiolate** releases nitric oxide (NO) in a controlled manner to tissues and organs to aid the healing process and to prevent injury to tissues at risk of injury. Electrospun **nanofibers** of linear poly(ethylenimine)**diazeniumdiolate** deliver therapeutic levels of NO to the tissues surrounding a medical device while minimizing the alteration of the properties of the device. A **nanofiber** coating, because of the small size and large surface area per unit mass of the **nanofibers**, provides a much larger surface area per unit mass while minimizing changes in other properties of the device (no data).

IT **10102-43-9**, Nitric oxide, biological studies
(nitric oxide-modified linear poly(ethylenimine) fibers for coating of medical devices)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM A61L027-00

CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 38

IT Synthetic fibers
(nano-; nitric oxide-modified linear poly(ethylenimine) fibers for coating of medical devices)
IT 10102-43-9, Nitric oxide, biological studies
(nitric oxide-modified linear poly(ethylenimine) fibers for coating of medical devices)
OSC.G 16 THERE ARE 16 CAPLUS RECORDS THAT CITE THIS RECORD (16 CITINGS)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L111 1 BIB ABS HITSTR HITIND

L111 ANSWER 1 OF 1 HCA COPYRIGHT 2010 ACS on STN
AN 134:67585 HCA Full-text
TI Tyrosine nitration by peroxynitrite formed from nitric oxide and superoxide generated by xanthine oxidase
AU Sawa, Tomohiro; Akaike, Takaaki; Maeda, Hiroshi
CS Department of Microbiology, Kumamoto University School of Medicine, Kumamoto, 860-0811, Japan
SO Journal of Biological Chemistry (2000), 275(42), 32467-32474
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB Peroxynitrite (ONOO-) is a potent nitrating and oxidizing agent that is formed by a rapid reaction of nitric oxide (NO) with superoxide anion (O2). It appears to be involved in the pathophysiol. of many inflammatory and neurodegenerative diseases. It has recently been reported that ONOO- generated at neutral pH from NO and O2 (NO/O2) was substantially less efficient than preformed ONOO- at nitrating tyrosine. Here we re-evaluated tyrosine nitration by NO/O2 with a shorter incubation period and a more sensitive electrochem. detection system. Appreciable amts. of nitrotyrosine were produced by ONOO- formed in situ (2.9 μM for 5 min; 10 nM/s) by NO/O2 flux obtained from propylamine NONOate (CH3N[N(O)NO]- (CH2)3NH2+CH3) and xanthine oxidase using pterin as a substrate in phosphate buffer (pH 7.0) contg. 0.1 mM L-tyrosine. The yield of nitrotyrosine by this NO/O2 flux was approx. 70% of that produced by the same flux of preformed ONOO- (2.9 μM/5 min). When hypoxanthine was used as a substrate, tyrosine nitration by NO/O2 was largely eliminated because of the inhibitory effect of uric acid produced during the oxidn. of hypoxanthine. Tyrosine nitration caused by NO/O2 was inhibited by the ONOO- scavenger ebselen and was enhanced 2-fold by NaHCO3, as would be expected, because CO2 promotes tyrosine nitration. The profile of nitrotyrosine and dityrosine formation produced by NO/O2 flux (2.9 μM/5 min) was consistent with that produced by preformed ONOO-. Tyrosine nitration predominated compared with dityrosine formation caused by a low nanomolar flux of ONOO- at physiol. concns. of free tyrosine (<0.5 mM). In conclusion, our results show that NO generated with O2 nitrates tyrosine with a reactivity and efficacy similar to those of chem.

synthesized ONOO-, indicating that ONOO- can be a significant source of tyrosine nitration in physiol. and pathol. events in vivo.

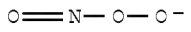
IT 10102-43-9, Nitric oxide, biological studies
19059-14-4, Peroxynitrite
(tyrosine nitration by peroxynitrite formed from nitric oxide and superoxide generated by xanthine oxidase)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

RN 19059-14-4 HCA

CN Peroxynitrite (8CI, 9CI) (CA INDEX NAME)



CC 6-1 (General Biochemistry)

IT Nitration
(tyrosine nitration by peroxynitrite formed from nitric oxide and superoxide generated by xanthine oxidase)

IT 9002-17-9, Xanthine oxidase 10102-43-9, Nitric oxide, biological studies 11062-77-4, Superoxide 19059-14-4, Peroxynitrite
(tyrosine nitration by peroxynitrite formed from nitric oxide and superoxide generated by xanthine oxidase)

IT 60-18-4, L-Tyrosine, biological studies
(tyrosine nitration by peroxynitrite formed from nitric oxide and superoxide generated by xanthine oxidase)

OSC.G 94 THERE ARE 94 CAPLUS RECORDS THAT CITE THIS RECORD (94 CITINGS)

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

---

CLAIM 1 AND RELATED

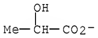
=> D L75 1-20 BIB ABS HITSTR HITIND

L75 ANSWER 1 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 142:214882 HCA Full-text
TI Stabilization and ionic triggering of nitric oxide release
IN Smith, Daniel J.
PA The University of Akron, USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2005011575 | A2 | 20050210 | WO 2004-US23867 | 20040726 |
| | WO 2005011575 | A3 | 20060112 | | |
| | EP 1648527 | A2 | 20060426 | EP 2004-779101 | 20040726 |
| | US 20090136410 | A1 | 20090528 | US 2007-565573 | 20070226 |
| PRAI | US 2003-490218P | P | 20030725 | | |
| | WO 2004-US23867 | W | 20040726 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB Provided is a method for producing nitric oxide that employs an ion exchange resin. Also provided is a method for producing nitric oxide that combines a salt with a gel or cream. A method is provided for producing nitric oxide that combines a pH adjuster with a diazeniumdiolate-contg. compd. or compn.
IT 113-21-3, Lactate, analysis
(stabilization and ionic triggering of nitric oxide release)
RN 113-21-3 HCA
CN Propanoic acid, 2-hydroxy-, ion(1-) (CA INDEX NAME)



IT 10102-43-9, Nitric oxide, biological studies
(stabilization and ionic triggering of nitric oxide release)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

IT 201168-09-4D, Dowex 1X400, reaction with NONOates
(stabilization and ionic triggering of nitric oxide release)
RN 201168-09-4 HCA
CN Dowex 1X400 (9CI) (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IC ICM A61K
CC 9-16 (Biochemical Methods)
IT Ion exchangers

Nanofibers
Nanoparticles
pH
(stabilization and ionic triggering of nitric oxide release)
IT 113-21-3, Lactate, analysis 126-44-3, Citrate, analysis 14265-44-2, Phosphate, analysis
(stabilization and ionic triggering of nitric oxide release)
IT 10102-43-9, Nitric oxide, biological studies
(stabilization and ionic triggering of nitric oxide release)
IT 16545-40-7 27561-78-0 201168-09-4D, Dowex 1X400, reaction with NONOates 839676-39-0 839676-40-3 839676-41-4
(stabilization and ionic triggering of nitric oxide release)
OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 2 OF 20 HCA COPYRIGHT 2010 ACS on STN
AN 141:370637 HCA Full-text
TI Fibrous assemblies that sequester reactive materials
IN Reneker, Darrell H.; Smith, Daniel J.
PA The University of Akron, USA
SO PCT Int. Appl., 15 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2004094050 | A2 | 20041104 | WO 2004-US12673 | 20040423 |
| | WO 2004094050 | A3 | 20050414 | | |
| | AU 2004233347 | A1 | 20041104 | AU 2004-233347 | 20040423 |
| | CA 2523957 | A1 | 20041104 | CA 2004-2523957 | 20040423 |
| | EP 1624953 | A2 | 20060215 | EP 2004-760164 | 20040423 |
| | JP 2006525445 | T | 20061109 | JP 2006-513289 | 20040423 |
| | CN 1917836 | A | 20070221 | CN 2004-80017111 | 20040423 |
| | IN 2005DN05060 | A | 20071005 | IN 2005-DN5060 | 20051107 |
| | IN 235762 | A1 | 20090904 | | |
| | US 20060280781 | A1 | 20061214 | US 2006-554191 | 20060803 |
| | IN 2009DN03391 | A | 20100409 | IN 2009-DN3391 | 20090525 |
| PRAI | US 2003-464879P | P | 20030423 | | |
| | WO 2004-US12673 | W | 20040423 | | |
| | IN 2005-DN5060 | A3 | 20051107 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB A fibrous assembly is provided for performing site-specific chem. In general the present invention provides a fibrous assembly comprising a first fiber that sequesters a first reactive component; and a second fiber that sequesters a second reactive component, wherein at least the first or second fiber releases its reactive component when the fiber is in the presence of a releasing agent, and wherein when the at least first or second fiber releases its reactive component, the first and second reactive components react with each other to form a reaction product. Related methods of manuf.

and use are also provided. For example, a nanofiber assembly was prepd. contg. two types of fibers, each sequestering a reactive component: fiber one contained ascorbic acid and fiber two contained potassium nitrite. When exposed to moisture, the assembly releases ingredients to give ascorbic acid and NO2-, which react to form nitric oxide. Alternatively, nitrite and/or ascorbic acid may be immobilized such as by being adsorbed onto an ion exchange resin bead, which is then incorporated into polymer fibers or nanofibers. Fiber assemblies as described above are envisioned as being used in nitric oxide-releasing medical dressings for the treatment of wounds and other lesions of the skin such as warts. This method may also be useful in other fields where the sequestration of reactive component is desired, such as in the creation of epoxy-type adhesives.

IT 10102-43-9, Nitric oxide, formation (nonpreparative)
(fibrous assemblies that sequester reactive materials for delivery to targeted locations)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM B01F

CC 63-7 (Pharmaceuticals)

ST fiber sequestrant reactive chem wound dressing adhesive; nitric oxide ascorbate nitrite nanofiber assembly

IT Spheres
(beads, ion exchangers; fibrous assemblies that sequester reactive materials for delivery to targeted locations)

IT Ion exchangers
(beads; fibrous assemblies that sequester reactive materials for delivery to targeted locations)

IT 10102-43-9, Nitric oxide, formation (nonpreparative)
(fibrous assemblies that sequester reactive materials for delivery to targeted locations)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 3 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 140:14124 HCA Full-text

TI Purification and characterization of a ubiquitin-like peptide with macrophage stimulating, antiproliferative and ribonuclease activities from the mushroom Agrocybe cylindracea

AU Ngai, Patrick H. K.; Wang, H. X.; Ng, T. B.

CS Faculty of Medicine, Department of Biochemistry, The Chinese University of Hong Kong, Shatin, Hong Kong

SO Peptides (New York, NY, United States) (2003), 24(5), 639-645
CODEN: PPTDD5; ISSN: 0196-9781

PB Elsevier Science Inc.

DT Journal

LA English
AB A peptide, with a mol. mass of 9.5 kDa and demonstrating an N-terminal sequence similar to ubiquitin, was isolated from fruiting bodies of the mushroom Agrocybe cylindracea. The peptide was isolated with a purifn. protocol involving ion exchange chromatog. on DEAE-cellulose, affinity chromatog. on Affi-gel blue gel, FPLC- ion exchange chromatog. on Mono S and FPLC-gel filtration on Superdex 75. The peptide was unadsorbed on DEAE-cellulose and adsorbed on Affi-gel blue gel and Mono S. It showed antiproliferative activity on leukemia cell line (M1) and hepatoma cell line (HepG2), and enhanced nitric oxide prodn. in murine peritoneal macrophages with a potency comparable to that of lipopolysaccharide. A pH of 6.0 was required for optimal RNase activity. Its RNase activity was stable over the temp. range of 0-60°. It exerted ribonucleolytic activity preferentially on polyC, much lower activity on polyU, and negligible activity on polyA and polyG.
IT 10102-43-9, Nitric oxide, biological studies
(prodn. of, effect of isolated ubiquitin-like peptide on; ubiquitin-like peptide from the mushroom Agrocybe cylindracea with macrophage stimulating, antiproliferative, and RNase activities)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)


CC 6-3 (General Biochemistry)
Section cross-reference(s): 10
IT 10102-43-9, Nitric oxide, biological studies
(prodn. of, effect of isolated ubiquitin-like peptide on; ubiquitin-like peptide from the mushroom Agrocybe cylindracea with macrophage stimulating, antiproliferative, and RNase activities)
OSC.G 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 4 OF 20 HCA COPYRIGHT 2010 ACS on STN
AN 138:226775 HCA Full-text
TI Preparation of morpholinosydnonimine-sugar conjugates as nitric oxide donors
IN Wang, Peng George; Wu, Xuejun; Tang, Xiaoping
PA Wayne State University, USA
SO U.S. Pat. Appl. Publl., 10 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|

PI US 20030050256 A1 20030313 US 2001-925816 20010809
US 6867194 B2 20050315
PRAI US 2001-925816 20010809
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OS MARPAT 138:226775
AB Sugar-modified SIN-1 compns. are provided. The compns. are useful for generating NO in response to hydrolytic activity of a glycosidase specific for the O-glycosidic bond between the sugar and SIN-1 moieties. Pharmaceutical compns. contg. the sugar-modified SIN-1 compns. and methods of using the compns. are also provided. 3-Morpholinosydnonimine-HCl was prepd. by a std. method. To a soln. of 4-nitrophenyl (2,3,4,6-tetra-O-acetyl-α/β-D- glucopyranosyl) carbonate in anhyd. pyridine was added the above compd. The solvent was removed in vacuo to give a sticky oil and the residue was purified by silica gel column chromatog. to give a mixt. of α- and β-anomers of the morpholinosydnonimine-glucose conjugate. The mixt. was treated with NaOCH3 in anhyd. MeOH and Amberlyst-15 ion-exchange resin was added to neutralize the reaction mixt.
IT 10102-43-9, Nitric oxide, biological studies
(prepn. of morpholinosydnonimine-sugar conjugates as nitric oxide donors)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM A61K031-706
ICS C07H017-02; C07H019-048
INCL 514043000; 514023000; 536028100; 536017400
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 33
IT Named reagents and solutions
(Ringer's lactate, liq. carrier; prepn. of morpholinosydnonimine-sugar conjugates as nitric oxide donors)
IT 9032-92-2, Glycosidase 10102-43-9, Nitric oxide, biological studies 11062-77-4, Superoxide 19059-14-4, Peroxynitrite
(prepn. of morpholinosydnonimine-sugar conjugates as nitric oxide donors)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 5 OF 20 HCA COPYRIGHT 2010 ACS on STN
AN 138:2681 HCA Full-text
TI L-arginine potentiates negative inotropic and metabolic effects to myocardium partly through the amiloride sensitive mechanism
AU Takeuchi, Koh; Simplaceanu, Elena; McGowan, Francis X., Jr.; Tsushima, Takao; del Nido, Pedro J.
CS Department of Cardiac Surgery, Children's Hospital, Boston and Harvard Medical School, Boston, MA, 02115, USA

SO Japanese Journal of Physiology (2002), 52(2), 207-215
CODEN: JJPHAM; ISSN: 0021-521X
PB Center for Academic Publications Japan
DT Journal
LA English
AB Recently, cytokines have been proposed to cause cellular injury by nitric oxide (NO·) mediated pathway and L-arginine has been proposed to impair intracellular pH (pHi) regulation via vacuolar type H+-ATPase in macrophage. We conducted this investigation on Langendorff perfused hearts of rabbits to elucidate the mechanisms involving the NO· precursor L-arginine on myocardial contractile function, glycolysis, mitochondrial respiration, and intracellular alkalinization and tested the effects of amiloride. L-Arginine caused a significant loss of contractile function (96 ± 4 mmHg in control, 53 ± 16 during L-arginine perfusion, $p<0.01$) and a significant increase of pH; (7.01 ± 0.02 prearginine infusion, 7.08 ± 0.03 at the end of L-arginine infusion, $p<0.01$) along with decreased oxygen consumption ($MVO_2$) (0.94±0.32 mL/min/g dry wt.), increased lactate release, and a loss of creatine phosphate (15% loss). Amiloride could prevent the cell alkalinization and contractile dysfunction, but not the derangement of oxidative metab. caused by L-arginine in myocytes. We conclude that L-arginine has two distinct effects upon the myocardium: (1) an amiloride-sensitive loss of contractile function assocd. with intracellular alkalinization; and (2) an amiloride-insensitive inhibition of oxidative metab., possibly because of increased myocardial NO prodn.
IT 10102-43-9, Nitric oxide, biological studies
(effect of NO precursor L-arginine on amiloride-sensitive Na+/H+ exchange, myocardial contractility, oxidative metab., high-energy phosphates, glycolysis and intracellular pH)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 13-6 (Mammalian Biochemistry)
IT Transport proteins
(hydrogen ion-sodium exchanger; effect of NO precursor L-arginine on amiloride-sensitive Na+/H+ exchange, myocardial contractility, oxidative metab., high-energy phosphates, glycolysis and intracellular pH)
IT 50-99-7, D-Glucose, biological studies 67-07-2, Creatine phosphate 74-79-3, L-Arginine, biological studies 10102-43-9, Nitric oxide, biological studies 12408-02-5, Hydrogen ion, biological studies 14265-44-2, Phosphate, biological studies
(effect of NO precursor L-arginine on amiloride-sensitive Na+/H+ exchange, myocardial contractility, oxidative metab., high-energy phosphates, glycolysis and intracellular pH)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 6 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 135:195359 HCA Full-text

TI Preparation of cycloalkanone from cycloalkyl nitrite

IN Yamamoto, Shoji; Sugimoto, Tsunemi

PA Ube Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 2001240574 | A | 20010904 | JP 2000-53175 | 20000229 |
| PRAI | JP 2000-53175 | | 20000229 | | |

OS CASREACT 135:195359; MARPAT 135:195359

AB Cycloalkanone is prepd. by contact reaction of cycloalkyl nitrite in the presence of solid acid catalyst (with recovering the resulting NO for recycling). Thus, cyclohexyl nitrite was treated with NH4-ZSM-5 in MeCN at 85° for 2 h to give 50:50 cyclohexanone and cyclohexanol with 55% conversion.

IT 10102-43-9P, Nitrogen monoxide, preparation
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM C07C049-403
ICS B01J021-12; B01J021-16; B01J029-10; B01J029-40; C07B061-00; C07C045-32

CC 24-5 (Alicyclic Compounds)

ST cycloalkanone prepn solid acid catalyst; cyclohexanone prepn zeolite catalyst; cyclohexyl nitrite disproportionation zeolite catalyst

IT Zeolite ZSM-5
(ammonium-substituted; prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Ketones, preparation
(cycloalkanones; prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Zeolite NaY
(iron-substituted; prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Cycloalkanols
(nitrites; prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Acids, uses

(oxo; prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Disproportionation catalysts
Ion exchangers
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT Acids, uses
Clay minerals
Zeolite HZSM-5
Zeolites (synthetic), uses
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 1724-39-6P, Cyclododecanol
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 108-93-0P, Cyclohexanol, preparation 10102-43-9P, Nitrogen monoxide, preparation
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 1318-93-0, Montmorillonite, uses 7631-86-9, Silica, uses
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 108-94-1P, Cyclohexanone, preparation 830-13-7P, Cyclododecanone
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 50744-58-6, Cyclododecyl nitrite
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

IT 5156-40-1P, Cyclohexyl nitrite
(prepn. of cycloalkanone from cycloalkyl nitrite with solid acid catalysts)

L75 ANSWER 7 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 134:160771 HCA Full-text

TI Nitrite uptake and metabolism and oxidant stress in human erythrocytes

AU May, James M.; Qu, Zhi-Chao; Xia, Li; Cobb, Charles E.

CS Departments of Medicine and Molecular Physiology and Biophysics, Vanderbilt University School of Medicine, Nashville, TN, 37232-6303, USA

SO American Journal of Physiology (2000), 279(6, Pt. 1), C1946-C1954
CODEN: AJPHAP; ISSN: 0002-9513

PB American Physiological Society

DT Journal

LA English

AB Nitric oxide, when released into the bloodstream, is quickly scavenged by Hb in erythrocytes or oxidized to nitrite. Nitrite can also enter erythrocytes and oxidize Hb. The goals of this work were to det. the mechanism of erythrocyte nitrite uptake and whether this uptake causes oxidant stress in these cells. Erythrocytes took up 0.8 mM nitrite with a half-time of 11 min. Nitrite uptake was sensitive to temp. and to the pH and ionic compn. of the medium but was not inhibited by the specific anion-exchange inhibitor

DIDS. About 25% of nitrite uptake occurred on the sodium-dependent phosphate transporter and the rest as diffusion of nitrous acid or other species across the plasma membrane. MetHb formation increased in proportion to the intracellular nitrite concn. Nitrite reacted with erythrocyte ascorbate, but ascorbate loading of cells decreased nitrite-induced metHb formation only at high nitrite concns. In conclusion, nitrite rapidly enters erythrocytes and reacts with oxyHb but does not exert a strong oxidant stress on these cells.

IT 10102-43-9, Nitric oxide, biological studies
(nitrite uptake and metab. and oxidant stress in human erythrocytes in relation to)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 13-6 (Mammalian Biochemistry)

IT 50-81-7, Ascorbic acid, biological studies 6730-29-6, Ascorbate radical, biological studies
(nitrite uptake and metab. and oxidant stress in human erythrocytes)

IT 10102-43-9, Nitric oxide, biological studies
(nitrite uptake and metab. and oxidant stress in human erythrocytes in relation to)

OSC.G 37 THERE ARE 37 CAPLUS RECORDS THAT CITE THIS RECORD (37 CITINGS)

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 8 OF 20 HCA 

AN 134:53243 HCA Full-text

TI An integrated nitric oxide sensor based on carbon fiber coated with selective membranes

AU Zhang, Xueji; Cardosa, Levis; Broderick, Mark; Fein, Harry; Lin, Jie

CS Department of Chemistry, World Precision Instruments, Inc., Sarasota, FL, 34240-9258, USA

SO Electroanalysis (2000), 12(14), 1113-1117
CODEN: ELANEU; ISSN: 1040-0397

PB Wiley-VCH Verlag GmbH

DT Journal

LA English

AB In vivo measurement of nitric oxide (NO) in a biol. matrix is very difficult because of its assumed low stability and fugacity, in addn. to the complexity of such matrix, limited space and vol. of biol. samples. Among different NO detection strategies, electrochem. NO sensors are still widely used by NO researchers. Though many kinds of NO sensors are com. available from World Precision Instruments, Inc. and other companies, the small NO sensors still are needed for the NO detection, esp. in single cell levels. In this article a NO-selective ultramicrosensor was developed as an easily

applicable tool for real time nitric oxide (NO) detection. The sensor consists of a 7 μm carbon fiber working electrode coated with cation exchanger (Nafion), then covered with NO-selective gas permeable polymeric membranes, and Ag/AgCl micro-ref./counter electrode. Compared with other reported NO sensors, the sensor described herein offers several advantages: i) high selectivity against ascorbate (>104:1), dopamine (>103:1) and nitrite (104:1); ii) detection limit to low nanomolar concn.; iii) rapid, inexpensive and reproducible fabrication; iv) wide linear calibration range from 10 nM to 5 μM with R2=0.995; v) integrated ultramicrosensor eliminating the need of an external ref. electrode, accordingly, expts. in small vol. are possible with an integrated ultramicrosensor, even at single cell levels.

IT 10102-43-9, Nitric oxide, analysis
(nitric oxide detn. using amperometric electrode based on carbon fiber coated with selective membranes)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 9-1 (Biochemical Methods)

IT Cation exchange membranes
(nitric oxide detn. using amperometric electrode based on carbon fiber coated with selective membranes)

IT 10102-43-9, Nitric oxide, analysis
(nitric oxide detn. using amperometric electrode based on carbon fiber coated with selective membranes)

OSC.G 44 THERE ARE 44 CAPLUS RECORDS THAT CITE THIS RECORD (45 CITINGS)

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 9 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 132:277974 HCA Full-text

TI Bioactivities of a tumor necrosis-like factor released by chicken macrophages

AU Rautenschlein, Silke; Subramanian, Anuradha; Sharma, Jagdev M.

CS Department of Veterinary Patho Biology, University of Minnesota, St Paul, MN, 55108, USA

SO Developmental & Comparative Immunology (1999), 23(7-8), 629-640
CODEN: DCIMDQ; ISSN: 0145-305X

PB Elsevier Science Ltd.

DT Journal

LA English

AB To test for tumor necrosis-like factor (TNF) of chickens, supernatants of a lipopolysaccharide (LPS)-stimulated chicken macrophage cell line MQ-NCSU were analyzed. A sequence of ion-exchange and gel-permeation chromatog. was

utilized to isolate TNF-like activity from the culture supernatant. The peak of TNF-like cytotoxic activity corresponded to the fractions with a mol. wt. of 81 kDa or higher. Polyclonal anti-human TNF-α antiserum cross-reacted by Western blotting with a 17 kDa protein in the TNF-contg. fraction under denaturing conditions. This result indicated that chicken TNF-like factor in the biol. active form may be a protein multimer of monomers of about 17 kDa. The mol. wt. of these monomers is similar to the mol. wt. of mammalian TNF-α. Chicken TNF-like factor stimulated macrophages by inducing morphol. changes, enhancing Ia-expression, nitric oxide (NO) prodn. and by synergizing with interferon (IFN)-γ in the induction of NO release from macrophages. The biol. activities were not neutralized by anti-human TNF antiserum. These data suggest that LPS-stimulated chicken macrophages produced a functional homolog to mammalian TNF-α. This may be structurally quite different from the mammalian TNF mol. Other factors may have been co-purified with the chicken TNF-like factor having overlapping functions and mol. wt. However, co-purifn. of chemokines and interleukin-1, major macrophage derived factors, with the chicken TNF-like factor can be excluded based on the purifn. strategies.

IT   10102-43-9, Nitric oxide, biological studies
     (bioactivities of a tumor necrosis-like factor released by chicken macrophages)

RN   10102-43-9  HCA

CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   15-5 (Immunochemistry)
     Section cross-reference(s): 12

IT   10102-43-9, Nitric oxide, biological studies
     (bioactivities of a tumor necrosis-like factor released by chicken macrophages)

OSC.G   18   THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

RE.CNT  45   THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75  ANSWER 10 OF 20  HCA  COPYRIGHT 2010 ACS on STN

AN   127:351684  HCA  Full-text

OREF 127:68859a,68862a

TI   Manufacture of platinum-carrying silica gel catalyst by ion exchange

IN   Tsurumi, Kazunori

PA   Tanaka Kikinzoku Kogyo K. K., Japan

SO   Jpn. Kokai Tokkyo Koho, 5 pp.
     CODEN: JKXXAF

DT   Patent

LA   Japanese

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 09276698 | A | 19971028 | JP 1996-96589 | 19960418 |
| PRAI JP 1996-96589 | | 19960418 | | |

AB The manufg. method involves a process of treating a $SiO_2$ gel with a Pt(IV) ammine complex ion obtained by heat treating ammonium chloroplatinate(IV) with an aq. $NH_3$ soln. and vaporizing the excess $NH_3$. The catalyst is useful for oxidizing $SO_2$, CO, NO, and $NH_3$ and dehydrating or hydrating a hydrocarbon. The obtained catalyst has a high Pt sp. surface area and shows high catalytic properties with the lower content of Pt.

IT **10102-43-9, Nitric oxide**, reactions
(**manuf.** of silica gel catalyst supporting platinum ammine complex by ion exchange)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

N═O

IC ICM B01J023-42
ICS B01J021-08; B01D053-86

CC 67-1 (Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms)

IT 630-08-0, Carbon monoxide, reactions 7446-09-5, Sulfur dioxide, reactions 7664-41-7, Ammonia, reactions **10102-43-9, Nitric oxide**, reactions 16919-58-7, Ammonium chloroplatinate(IV)
(**manuf.** of silica gel catalyst supporting platinum ammine complex by ion exchange)

L75 ANSWER 11 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 126:311373 HCA Full-text

OREF 126:60217a,60220a

TI Preparation of iron complexes containing 1,3-diamino-2-hydroxypropanetetra(acetic acid) and sulfite ligands as nitrogen monoxide adsorbents

IN Sato, Terubumi; Yamada, Takashi

PA Mizusawa Industrial Chemicals, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI JP 09067385 | A | 19970311 | JP 1995-223568 | 19950831 |
| JP 3589510 | B2 | 20041117 | | |
| PRAI JP 1995-223568 | | 19950831 | | |

AB An iron complex contg. Fe(II) and/or Fe(III) ions and 1,3-diamino-2-hydroxypropanetetra(acetic acid) (DHPTA) and sulfite ligands represented by compn. formula $M_p[Fe_4(O)_2(SO_3)_{2-n}(SO_4)_n(dhpta)_2]$ [M = cation; dhpta = 1,3-

diamino-2-hydroxypropanetetra(acetic acid); n = 0,1; p = no. satisfying mp = 2-10; m = valence no. of cation M] are prepd. by reacting a water-sol. Fe(II) salt, 1,3-diamino-2-hydroxypropanetetra(acetic acid), and a water-sol. sulfite salt in a aq. solvent in nonoxidizing atm. followed by optional oxidn. An iron complex comprising an iron-complex anion contg. Fe(II) and/or Fe(III) ions and 1,3-diamino-2-hydroxypropanetetra(acetic acid) and sulfite ligands, preferably represented by compn. formula [Fe4(O)2(SO3)2-n(SO4)n(dhpta)2]k- (n = 0,1; k =2-10), which are bonded to an org. or inorg. anion exchanger, is prepd. by reacting a water-sol. Fe(II) salt, 1,3-diamino-2-hydroxypropanetetra(acetic acid), and a water-sol. sulfite salt in a aq. solvent in nonoxidizing atm., mixing the product soln. with an org. or inorg. anion exchanger, sepg. the product, and optional oxidn. before or after mixing the anion exchanger. A nitrogen monoxide (NO)-adsorbent consisting of the above iron complex is claimed. These iron-complexes are useful as adsorbents for nitrogen oxide, in particular NO(g). FeSO4.7H2O 2.23, DHPTA 1.29, and NaHSO3 2.03 g were dissolved in 100 cm3 H2O with stirring at 50° for 20 min under Ar to give an aq. soln. contg. an tetra-iron complex (2 mmol), which was stirred with .apprx.20 g methanol-washed Dowex 2X8 (Cl-form) under Ar. The Dowex resin was filtered off, washed with H2O at 50° and then with MeOH, and air-dried to give a dry resin (.apprx.18 g). The dry resin-immobilized Fe(II) complex (7.8 g) was packed in a glass tube, to which was passed N contg. 902 ppm NO at 420 cm3/min. The NO removal ratio was initially 95% and after passing 95 L gas for 3.8 h, it became 0. A total accumulation of NO absorbed was 3.5 mmol.

IT 10102-43-9, Nitrogen monoxide, processes
(prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic acid) and sulfite ligands and anion exchanger-immobilized iron complexes as nitrogen monoxide adsorbents)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IT 11138-20-8, Dowex 2X8
(prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic acid) and sulfite ligands and anion exchanger -immobilized iron complexes as nitrogen monoxide adsorbents)

RN 11138-20-8 HCA

CN Dowex 2X8 (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C07F015-02
ICS B01J020-22

CC 78-7 (Inorganic Chemicals and Reactions)

IT Adsorbents
(prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic acid) and sulfite ligands and anion exchanger -immobilized iron complexes as nitrogen monoxide adsorbents)

IT   Anion exchangers
        (prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic
        acid) and sulfite ligands and anion exchanger
        -immobilized iron complexes as nitrogen monoxide adsorbents)
IT   1344-28-1, Aluminum oxide (Al2O3), reactions
        (Neobead DN 1A; prepn. of iron complexes contg.
        diaminohydroxypropanetetra(acetic acid) and sulfite ligands and
        anion exchanger-immobilized iron complexes as
        nitrogen monoxide adsorbents)
IT   10102-43-9, Nitrogen monoxide, processes
        (prepn. of iron complexes contg.
        diaminohydroxypropanetetra(acetic acid) and sulfite ligands and
        anion exchanger-immobilized iron complexes as
        nitrogen monoxide adsorbents)
IT   1314-23-4, Zirconia, reactions   3148-72-9,
     1,3-Diamino-2-hydroxypropanetetra(acetic acid)   7720-78-7, Iron(II)
     sulfate   7757-83-7, Sodium sulfite 11138-20-8,
     Dowex 2X8   13463-67-7, Titania, reactions
        (prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic
        acid) and sulfite ligands and anion exchanger
        -immobilized iron complexes as nitrogen monoxide adsorbents)
IT   15438-31-0DP, Ferrous ion, complexes, preparation   20074-52-6DP,
     Ferric ion, complexes, preparation   189275-27-2P   189275-28-3P
     189275-29-4DP, exchanged on Dowex 2X8   189275-30-7DP,
     exchanged on Dowex 2X8
        (prepn. of iron complexes contg. diaminohydroxypropanetetra(acetic
        acid) and sulfite ligands and anion exchanger
        -immobilized iron complexes as nitrogen monoxide adsorbents)

L75  ANSWER 12 OF 20  HCA  COPYRIGHT 2010 ACS on STN
AN   126:91507  HCA  Full-text
OREF 126:17633a,17636a
TI   Manufacture of nitric oxide and apparatus therefor
IN   Hirose, Yasuo
PA   Hitachi Ltd, Japan
SO   Jpn. Kokai Tokkyo Koho, 16 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | JP 08290906 | A | 19961105 | JP 1995-96507 | 19950421 |
| PRAI | JP 1995-96507 | | 19950421 | | |

AB   The process comprises adding water to the first aq. electrolyte contg. $HNO_3$ in the first anode chamber of a NO producing means having a first anoned chamber and a first cathode chamber, which are sepd. by an ion-exchange membrane, reducing $HNO_3$ in the second aq. electrolyte in the first cathode chamber by electrolysis to form NO, taking out NO from the NO producing means, feeding the second aq. electrolyte to the second anode chambers of a $HNO_3$ concg. means having multiple second anode chambers and second cathode chambers formed by alternately arranging cationic-exchange membranes and

anionic- exchange membranes, transferring water accompanied in H ion from the second anode chambers to the second cathode chambers by electrodialysis, and returning the second aq. electrolyte to the first cathode chamber. The process decreases electricity consumption. The app. is also claimed.

IT 10102-43-9P, Nitric oxide, preparation
(manuf. of nitric oxide by electrolysis of nitric acid and app. therefor)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM C01B021-24
ICS G21C019-46

CC 49-3 (Industrial Inorganic Chemicals)

IT 10102-43-9P, Nitric oxide, preparation
(manuf. of nitric oxide by electrolysis of nitric acid and app. therefor)

L75 ANSWER 13 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 122:152236 HCA Full-text

OREF 122:27969a,27972a

TI Cultured astrocytes release a factor that decreases endothelin-1 secretion by brain microvessel endothelial cells

AU Federici, C.; Camoin, L.; Creminon, C.; Chaverot, N.; Strosberg, A. D.; Couraud, P. O.

CS Lab. d'Immuno-Pharm. Mol., Univ. Paris VII, Gif-sur-Yvette, Fr.

SO Journal of Neurochemistry (1995), 64(3), 1008-15
CODEN: JONRA9; ISSN: 0022-3042

PB Lippincott-Raven

DT Journal

LA English

AB Endothelin-1 (ET-1), originally characterized as a potent vasoconstrictor peptide secreted by vascular endothelial cells, has now been described to possess a wide range of biol. activities within the cardiovascular system and in other organs. Brain microvessel endothelial cells, which, together with perivascular astrocytes, constitute the blood-brain barrier, have been shown to secrete ET-1, whereas specific ET-1 receptors are expressed on astrocytes. It is reported here that conditioned medium from primary cultures of mouse embryo astrocytes could significantly, and reversibly, attenuate the accumulation of both ET-1 and its precursor big ET-1 in the supernatant of rat brain microvessel endothelial cells by up to 59 and 76%, resp., as assessed by immunometric assay. This inhibitor of ET-1 prodn. was purified by gel-exclusion and ion- exchange chromatog. as a 280-Da iron-contg. mol., able to release nitrites upon degrdn. These results suggest that astrocytes, via release of an iron-nitrogen oxide complex, may be involved in a regulatory loop of ET-1 prodn. at the level of the blood-brain barrier.

IT 10102-43-9DP, Nitric oxide, iron complex

(astrocytes in release of factor to decrease endothelin-1 secretion by brain microvessel endothelial cells)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 2-10 (Mammalian Hormones)
IT 7439-89-6DP, Iron, complex nitrogen oxide 10102-43-9DP, Nitric oxide, iron complex
(astrocytes in release of factor to decrease endothelin-1 secretion by brain microvessel endothelial cells)
OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L75 ANSWER 14 OF 20 HCA COPYRIGHT 2010 ACS on STN
AN 120:365 HCA Full-text
OREF 120:87a,90a
TI Biochemical characterization of a membrane-bound enzyme responsible for generating nitric oxide from nitroglycerin in vascular smooth muscle cells
AU Seth, Prem; Fung, Ho Leung
CS Sch. Pharm., State Univ. New York, Buffalo, NY, 14260, USA
SO Biochemical Pharmacology (1993), 46(8), 1481-6
CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English
AB A membrane-bound enzyme responsible for generating nitric oxide (NO) from nitroglycerin (NTG) in vascular smooth muscle cells has been characterized. The enzyme could be solubilized from vascular microsomes by several detergents, the most effective of which was 3-[(3-cholamidopropyl)dimethylamino]-1- propanesulfonate (CHAPS). A partially purified enzyme prepn. was obtained with CHAPS-solubilized vascular microsomes that were processed sequentially through an ion exchange column and a gel filtration column. The activity of this partially purified enzyme showed a dependence on substrate concn., protein concn. and the duration of incubation. Enzyme activity was enhanced 2.7- to 4.2-fold by several thiols such as cysteine, N-acetylcysteine, reduced glutathione, and dithiothretol. On the other hand, N-ethylmaleimide, iodoacetic acid, p-chloromercuric benzoic acid and 1-chloro-2,4-dinitrobenzene, reagents known to bind with the free sulfhydryl groups, inactivated the NO-generating activity from NTG. The enzyme activity could be reversibly bound to an organomercurial column. These results suggested the presence of a free thiol group in the enzyme and that this thiol group was required for enzyme activity. The partially purified enzyme was active in the presence of 0.1% sodium dodecyl sulfate (SDS). The enzyme was purified to near homogeneity using several sequential chromatog. steps including DEAE-Sephacel, Biogel A 1.5 m, hydroxylapatite and organomercurial columns, resulting in an increase in enzyme activity of about 94-fold. The subunit of this enzyme, as identified on an SDS-treated electrophoresis gel, had an apparent mol. size of 58 kDa.

IT   10102-43-9, Nitric oxide, biological studies
        (nitroglycerin vasodilation mediation by formation of, by
        membrane-bound enzyme)
RN   10102-43-9  HCA
CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   1-8 (Pharmacology)
     Section cross-reference(s): 7
IT   Thiols, biological studies
        (nitric oxide generation by
        membrane-bound enzyme dependence on, nitrovasodilators in relation
        to)
IT   Vasodilators
        (nitro-, nitric oxide generation by,
        membrane-bound enzyme mediation of)
IT   10102-43-9, Nitric oxide, biological studies
        (nitroglycerin vasodilation mediation by formation of, by
        membrane-bound enzyme)
IT   125978-95-2, Nitric oxide synthase
        (of coronary microsomes, nitrovasodilator action mediation by
        nitric oxide generation by)
IT   55-63-0P, Nitroglycerin
        (vasodilation by, nitric oxide
        generation by membrane-bound enzyme in)
OSC.G   25    THERE ARE 25 CAPLUS RECORDS THAT CITE THIS RECORD (25
              CITINGS)

L75  ANSWER 15 OF 20  HCA  COPYRIGHT 2010 ACS on STN
AN   118:216318  HCA  Full-text
OREF 118:37245a,37248a
TI   Method for removing cations and anions from an engine coolant liquid
IN   Shubert, David C.; Myers, Galen R.; Richardson, Robert C.
PA   BG Products, Inc., USA
SO   U.S., 33 pp.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 5174902 | A | 19921229 | US 1990-485939 | 19900227 |
| PRAI | US 1990-485939 | | 19900227 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB    A method and app. for removing particulates, hydrocarbons such as oil,
      cations, and anions including NO2- from a liq. such as automobile engine
      coolant uses activated C filters and ion exchange beds.  The app. has ≥1

filter for removing particulates and hydrocarbons; a strong acid cation exchange bed in the H form; a strong base anion exchange bed in the OH- form for removing anions; and a separator for sepg. gas contg. N, such as NO and/or NO2, that is produced in the cation exchange bed and/or the anion exchange bed.

IT 10102-43-9P, Nitric oxide, preparation
(formation and removal of, from nitrites, in anion exchange treatment of automobile engine coolants)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM C02F009-00

INCL 210662000

CC 51-11 (Fossil Fuels, Derivatives, and Related Products)

ST cation anion removal engine coolant liq; antifreeze impurity removal; nitrite removal engine coolant liq

IT Antifreeze substances
(cations and anions in, removal of, by ion exchange and adsorption, method and app. for)

IT Nitrites
(removal of, from automobile engine coolants, by anion exchange, method and app. for)

IT Cooling agents
(liq., cations and anions in, removal of, by ion exchange and adsorption, method and app. for)

IT 7782-77-6P, Nitrous acid 10102-43-9P, Nitric oxide, preparation 10102-44-0P, Nitrogen dioxide, preparation
(formation and removal of, from nitrites, in anion exchange treatment of automobile engine coolants)

OSC.G 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 16 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 115:5803 HCA Full-text

OREF 115:1139a,1142a

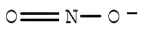
TI Comparison of properties of nitric oxide and endothelium-derived relaxing factor: some cautionary findings

AU Furchgott, R. F.; Khan, M. T.; Jothianandan, D.

CS Health Sci. Cent., SUNY, Brooklyn, NY, 11203, USA

SO Endothelium-Deriv. Relaxing Factors, Int. Symp. Endothelium-Deriv. Vasoact. Factors, 1st (1990), Meeting Date 1989, 8-21.
Editor(s): Rubanyi, Gabor M.; Vanhoutte, Paul M. Publisher: Karger, Basel, Switz.
CODEN: 57ATAZ

DT Conference
LA English
AB The differential sensitivity of smooth muscles to endothelium-derived relaxing factor (EDRF) and NO, the ability of an anion- exchange resin (1°, 2°-amino (NH2/NH)) to remove the vascular relaxing activity of both EDRF and NO, and the appearance of NO2- as a major oxidn. product of NO, whether the oxidant is O2 or O2-· are demonstrated, and considerations on making and biol. testing of solns. of NO are discussed. The relevance of the findings of these expts. to the identity of EDRF and NO is discussed.
IT 14797-65-0, Nitrite, biological studies
(as nitric oxide oxidn. product)
RN 14797-65-0 HCA
CN Nitrite (8CI, 9CI) (CA INDEX NAME)



IT 10102-43-9P, Nitric oxide, biological studies
(endothelium-derived relaxing factor identity with, nitric oxide prepn. and testing in relation to)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 13-6 (Mammalian Biochemistry)
IT 14797-65-0, Nitrite, biological studies
(as nitric oxide oxidn. product)
IT 10102-43-9P, Nitric oxide, biological studies
(endothelium-derived relaxing factor identity with, nitric oxide prepn. and testing in relation to)
OSC.G 14 THERE ARE 14 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

L75 ANSWER 17 OF 20 HCA COPYRIGHT 2010 ACS on STN
AN 96:71455 HCA Full-text
OREF 96:11737a,11740a
TI Determination of total N-nitroso content in cutting fluids
AU Cox, Robert D.; Frank, Clyde W.
CS Dep. Chem., Univ. Iowa, Iowa City, IA, 52242, USA
SO Analytical Chemistry (1982), 54(3), 557-9
CODEN: ANCHAM; ISSN: 0003-2700
DT Journal
LA English
AB A rapid detn. of the total N-nitroso content of cutting fluids involves initial removal of nitrite by ion exchange, iodide ion, or sulfanilamide [1116-54-7]. The nitrite-free sample is analyzed by denitrosation of N-

nitroso compds. to produce NO, which is detected via its gas-phase chemiluminescence reaction with O3. The detection limit is 5 + 10-11 mol on cutting fluid samples. Anal. time is 5-15 min.

IT 10102-43-9P, preparation
(formation of, in detn. of N-nitroso content of cutting fluids)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 80

IT 10102-43-9P, preparation
(formation of, in detn. of N-nitroso content of cutting fluids)

L75 ANSWER 18 OF 20 HCA COPYRIGHT 2010 ACS on STN

AN 65:16303 HCA Full-text

OREF 65:3038f-h,3039a

TI Sorption of carbon disulfide by anion-exchange resins

AU Tsaplina, L. A.; Davankov, A. B.

SO Zhurnal Prikladnoi Khimii (Sankt-Peterburg, Russian Federation) (1966), 39(3), 608-11
CODEN: ZPKHAB; ISSN: 0044-4618

DT Journal

LA Russian

GI For diagram(s), see printed CA Issue.

AB The sorption of CS2 from aq. solns. was investigated on the OH forms of the air-dried AN-1, MMG-1, N-O, EDE-10P, and SDTM anion- exchange resins as well as on AP-3 activated C under static conditions. The sorption capacity of the investigated systems to CS2 is about the same. The greater the CS2 concn. in the aq. soln., the greater the sorption. The sorption is accompanied by changes in resin color. These colors are derived from the interaction of CS2 with the active resin groups, giving rise to the formation of a new type of xanthate, according to the reactions: These types of compds. are readily decompd. by 1% HCl solns. with the resin completely recovering its initial color and ion exchange capacity as detd. by expts. carried out by regenerating the resin. This was accomplished by alternate loading of the resin with 0.1N H2SO4 and HCl solns. The influence of the flow rate and temp. on the sorption process considered showed little effect on the 1st parameter, but increases in temp. resulted in a noticeable sorption increase. The anion- exchangers proved to be superior to the activated C as sorbents. Carrying out the sorption process at 40° brings about a 50% increase in sorption efficiency by the resins.

IT 10102-43-9P, N-O
(carbon disulfide adsorption by, xanthate formation in)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC   4 (Surface Chemistry and Colloids)
IT   Anion-exchanging substances
        (carbon disulfide adsorption by, xanthate formation in)
IT   Adsorption
        (of carbon disulfide, by anion-exchange resins,
        xanthate formation in)
IT   75-15-0P, Carbon disulfide
        (adsorption of, by anion-exchange resins,
        xanthate formation in)
IT   9086-61-7P, AN 1 10102-43-9P, N-O   11106-30-2P, EDE 10P
     76483-21-1P, AP 3
        (carbon disulfide adsorption by, xanthate formation in)
IT   151-01-9P, Xanthate
        (formation of, in CS2 adsorption by anion
        exchange resins)

L75  ANSWER 19 OF 20  HCA  COPYRIGHT 2010 ACS on STN
AN   62:20775  HCA  Full-text
OREF 62:3696f-g
TI   Extraction of tungsten from nitric acid solutions
AU   Yurkevich, Yu. N.; Sviridovskaya, R. M.
SO   Sb. Tr. Vses. Nauchn.-Issled. Inst. Tverd. Splavov (1964),
     (5), 245-9
     From: Ref. Zh., Met. 1964, Abstr. No. 9G117.
DT   Journal
LA   Russian
AB   The possibility of extg. WO3 from HNO3 solns. with the aid of the anion exchanger N-O was studied. The total exchange capacity of the exchanger N-O at an acidity of 5-50 g. HNO3/l. was not inferior to that of the anion exchanger EDE-10P in HCl solns., and was 170-80 kg. WO3/ton ion exchanger. W was regenerated with 10% NaOH. WO3 can be obtained from the regenerated product by existing procedures.
IT   10102-43-9P, N-O
        (in tungsten extn. from HNO3 solns.)
RN   10102-43-9  HCA
CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   18 (Extractive Metallurgy)
IT   Anion exchange
        (in tungsten extn. from HNO3 solns.)
IT   10102-43-9P, N-O
        (in tungsten extn. from HNO3 solns.)

IT   7440-33-7, Tungsten
        (process metallurgy of, from nitric acid soln. by anion
        exchange)

L75  ANSWER 20 OF 20  HCA  COPYRIGHT 2010 ACS on STN
AN   62:19176  HCA  Full-text
OREF 62:3443e-f
TI   Absorption of cations by various anion exchangers
AU   Muromtseva, G. V.; Ol'shanova, K. M.; Saldadze, K. M.; Kopylova, V. D.
SO   Issled. Svoistv Ionoobmen. Materialov, Akad. Nauk SSSR, Inst. Fiz.
     Khim. (1964) 108-14
DT   Journal
LA   Russian
AB   The influence of structure of various Soviet anion exchange resins, and their salt form, pretreatment, and temp. on the sorption capacity for $Cu^{++}$ was studied. The anion exchangers in Cl form were brought in contact with 0.1N $CuCl_2$ of pH 3.8. Monofunctional anion exchangers of polymn. type do not sorb $Cu^{++}$, whereas those obtained by polycondensation form complexes with $Cu^{++}$. $Cu^{++}$ is uniformly distributed inside the beads. For complex formation, the presence of primary and secondary amine groups is necessary, and their complexing capacity is increased by tertiary amine and OH groups. The complexes are split by acids and not by $NH_3$. With anion exchangers in OH form, sparingly sol. $Cu(OH)_2$ or basic salts are formed mainly on the bead surface. Condensation-type anion exchangers reduce $Ag^+$ to its metal form. With increasing temp., the sorption capacity increases. Pretreatment of com. anion exchangers has no effect.
IT   10102-43-9P, N-O
        (anion exchange capacity of, complex formation
        and)
RN   10102-43-9  HCA
CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   4 (Surface Chemistry and Colloids)
IT   Anion exchange
        (capacity of)
IT   Amino group
        (in anion-exchanging resins, complex formation
        and)
IT   Hydroxyl group
        (on anion-exchanging resins, complex formation
        and)
IT   7440-50-8P, Copper
        (and salts, basic, formation of, in anion
        exchange of Cu)
IT   9064-43-1P, AN 2FG   9086-61-7P, AN 1 10102-43-9P, N-O
     11106-30-2P, EDE 10P   11111-77-6P, AV 16   11138-00-4P, AN-15
     12640-33-4P, AN-31   30176-85-3P, Phenol,

2,2'-thiobis[tert-butyl-4-chloro-   37380-46-4P, AN-20   39454-56-3P,
AV 18   56939-65-2P, AN 17   61642-45-3P, AN-24
(anion exchange capacity of, complex formation
and)

IT   11106-27-7P, AV 17
(anion-exchange capacity of, complex formation
and)

IT   20427-59-2P, Copper hydroxide, Cu(OH)2
(formation of, in anion exchange of Cu)

IT   7440-22-4, Silver
(redn. of, by anion-exchange resins)

=> D L78 1-14 BIB ABS HITSTR HITIND

L78  ANSWER 1 OF 14  HCA  

AN   139:207973  HCA  Full-text

TI   Estrone and estradiol mediate vascular function by different mechanisms

AU   Massheimer, V.; Polini, N.; Benozzi, S.; Alvarez, C.; Selles, J.

CS   Catedra de Analisis Clinicos II, Departamento de Biologia, Bioquimica y Farmacia. Universidad Nacional del Sur, Bahia Blanca, B8000ICN, Argent.

SO   Revista Argentina de Endocrinologia y Metabolismo (2003), 40(1), 3-12
CODEN: RAEMA7; ISSN: 0326-4610

PB   Sociedad Argentina de Endocrinologia y Metabolismo

DT   Journal

LA   Spanish

AB   Postmenopausal women have an increased risk for cardiovascular disease which is assocd. to the lost of the vascular protective action of estradiol. In this period circulating estradiol (E2) levels are considerably low, but estrone (E1) levels remain high due to its peripheral synthesis. The endothelium produces different active metabolites, such as NO and eicosanoids (thromboxane, prostaglandins and prostacycline), which regulate arterial vasomotor properties and platelet aggregation. Previously the authors demonstrated that rat aortic tissue treated with physiol. concns. of estradiol and progesterone for 1-5 min inhibits platelet aggregation mediated by NOS activation. The authors also reported progesterone rapid action on aortic cyclooxygenase. The aim of the present study was to compare the mechanism involved in the rat aortic rapid response to E1 or E2. Rat aortic strips (RAS) with intact endothelium, were treated in vitro for 1-5 min with physiol. concns. of E2 or E1. Platelet aggregation (PA) induced by 10 μM ADP was measured in a platelet-rich plasma (PRP) which was incubated with RAS and treated with the hormones. NO prodn. was measured by conversion of 3H-arginine to 3H-citruline reaction. 3H-citruline was detd. by ion exchange chromatog. using a Dowex AG-50WX8 column. Eicosanoids prodn. was measured by TLC using 3H-arachidonic acid as precursor. The increase in NO prodn. induced by 1 nM E1 treatment was abolished by the presence of L-NAME in the incubation media, confirming that NOS is activated in aortic tissue in response to E1 as has been demonstrated for E2. Calcium

requirement for aorta NOS rapid activation by E1 and E2 treatment was studied. The presence of 0.5 mM EGTA in the incubation medium abolished the increase in NO prodn. induced by 1 nM E2, whereas the tissue response to 1 nM E1 was not affected by the calium chelator, implying that the aorta response to E1 treatment does not require extracellular Ca2+. Both E2 and E1 treatment inhibited PA, but the effect elicited by E1 is less potent compared with E2. The eicosanoid signal transduction pathway is involved in RAS rapid response to E2 or E1. The authors' results show that both hormones increase PGI2 release by aortic tissue, with higher stimulus induced by E1. Thromboxane (Tx) prodn. was stimulated only by E1. Considering the potent effect of Tx on platelet aggregation, the authors detd. the effect of E1 treatment on platelet aggregation in the presence of the cyclooxigenase (COX) inhibitor indomethacine. The authors found that under this exptl. condition E1 treatment produced an inhibition of platelet aggregation equiv. to that elicited by E2. These results suggest that E1 and E2 modulate rat aortic NOS and COX activity by different mechanisms.

IT 10102-43-9, Nitric oxide, biological studies
(estradiol and estrone effects on eicosanoid and nitric oxide formation and platelet aggregation in rat aorta mediation by different mechanisms)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 2-4 (Mammalian Hormones)

IT Artery
(aorta; estradiol and estrone effects on eicosanoid and nitric oxide formation and platelet aggregation in rat aorta mediation by different mechanisms)

IT Platelet aggregation
Platelet aggregation
(estradiol and estrone effects on eicosanoid and nitric oxide formation and platelet aggregation in rat aorta mediation by different mechanisms)

IT 50-28-2, Estradiol, biological studies 53-16-7, Estrone, biological studies 10102-43-9, Nitric oxide, biological studies 35121-78-9, PGI2 39391-18-9, Cyclooxygenase 125978-95-2, Nitric oxide synthase
(estradiol and estrone effects on eicosanoid and nitric oxide formation and platelet aggregation in rat aorta mediation by different mechanisms)

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 2 OF 14 HCA COPYRIGHT 2010 ACS on STN

AN 138:149777 HCA Full-text

TI Evaluation of methods for the extraction of nitrite and

nitrate in biological fluids employing high-performance anion
-exchange liquid chromatography for their determination

AU Smith, Christopher C. T.; Stanyer, Lee; Betteridge, D. John

CS Department of Medicine, The Middlesex Hospital, Royal Free and University College Medical School, London, W1N 8AA, UK

SO Journal of Chromatography, B: Analytical Technologies in the Biomedical and Life Sciences (2002), 779(2), 201-209
CODEN: JCBAAI; ISSN: 1570-0232

PB Elsevier Science B.V.

DT Journal

LA English

AB Measurements of NO2- and NO3- in biol. fluids are proposed as indexes of cellular NO prodn. Detn. of NO2- and NO3- in std. solns. is not difficult, however, detns. which reflect accurately cellular NO synthesis represent a considerable anal. challenge. Problems are often encountered arising from background NO2-/NO3- contamination in exptl. solns. and lab. hardware, and with methods for sample extn. We investigated potential procedures for the extn. and detn. of NO2- and NO3- in biol. samples. Consequently, a protocol was devised which yielded acceptable results regarding extn. efficiency, assay reproducibility, sample throughput and contaminant minimization. It entailed rigorous washing of all equipment with water of low NO2- and NO3- content, sample deproteinization by centrifugal ultrafiltration through a 3K filter, and anal. by high-performance anion- exchange liq. chromatog. with UV detection. Retention times for NO2- and NO3- in stds. and plasma were 4.4 and 5.6 min, resp. Assay linearity for stds. ranged between 31 nM and 1 mM. The limit of detection for NO2- and NO3- in stds. was 3 pmol. Recoveries of NO2- and NO3- from spiked plasma (1-100 μM KNO2/KNO3) and from extd. stds. (1-250 μM) were .apprx.100%. Intra-assay and inter-assay RSDs for NO2- and NO3- in spiked and unspiked plasma were ≤10.6%. Assays on washed platelet supernatants demonstrated collagen-induced platelet generation of NO products and anal. of murine and rat cardiac perfusates was achieved. Our procedure may be suitable for routine detn. of NO2- and NO3- in various biol. fluids, e.g., plasma.

IT 10102-43-9, Nitric oxide, analysis
(extn. of nitrite and nitrate in biol. fluids employing high-performance anion-exchange liq. chromatog. for their detn.)

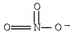
RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

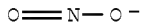
IT 14797-55-8P, Nitrate, analysis 14797-65-0P, Nitrite, analysis
(extn. of nitrite and nitrate in biol. fluids employing high-performance anion-exchange liq. chromatog. for their detn.)

RN 14797-55-8 HCA

CN   Nitrate (6CI, 7CI, 8CI, 9CI)  (CA INDEX NAME)



RN   14797-65-0  HCA
CN   Nitrite (8CI, 9CI)  (CA INDEX NAME)



CC   9-9 (Biochemical Methods)
ST   nitrate nitrite extn blood HPLC
IT   Anion exchange HPLC
     Blood analysis
     Extraction
     Platelet (blood)
        (extn. of nitrite and nitrate in biol. fluids employing
        high-performance anion-exchange liq. chromatog.
        for their detn.)
IT   10102-43-9, Nitric oxide, analysis
        (extn. of nitrite and nitrate in biol. fluids employing
        high-performance anion-exchange liq. chromatog.
        for their detn.)
IT   14797-55-8P, Nitrate, analysis 14797-65-0P,
     Nitrite, analysis
        (extn. of nitrite and nitrate in biol. fluids employing
        high-performance anion-exchange liq. chromatog.
        for their detn.)
OSC.G   20    THERE ARE 20 CAPLUS RECORDS THAT CITE THIS RECORD (20
              CITINGS)
RE.CNT  21    THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78  ANSWER 3 OF 14  HCA  COPYRIGHT 2010 ACS on STN
AN   122:299108  HCA  Full-text
OREF 122:54329a,54332a
TI   Polymer-bound nitric oxide/nucleophile adduct compositions for
     treatment of biological disorders
IN   Keefer, Larry K.; Hrabie, Joseph A.
PA   United States Dept. of Health and Human Services, USA
SO   U.S., 13 pp.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 11
     PATENT NO.          KIND   DATE         APPLICATION NO.        DATE

| | | | | | |
|---|---|---|---|---|---|
| | ---------------- | ---- | -------- | -------------------- | -------- |
| PI | US 5405919 | A | 19950411 | US 1992-935565 | 19920824 |
| | US 5525357 | A | 19960611 | US 1993-121169 | 19930914 |
| | US 5650447 | A | 19970722 | US 1994-214372 | 19940317 |
| | US 5632981 | A | 19970527 | US 1994-344157 | 19941122 |
| | US 5676963 | A | 19971014 | US 1995-417917 | 19950406 |
| | US 5718892 | A | 19980217 | US 1995-417913 | 19950406 |
| | US 5691423 | A | 19971125 | US 1995-419424 | 19950410 |
| | US 5910316 | A | 19990608 | US 1995-419044 | 19950410 |
| | US 6110453 | A | 20000829 | US 1998-13349 | 19980126 |
| | US 6290981 | B1 | 20010918 | US 1999-289570 | 19990409 |
| | US 6379660 | B1 | 20020430 | US 2000-666668 | 20000920 |
| | US 20020119115 | A1 | 20020829 | US 2002-41200 | 20020108 |
| | US 7425218 | B2 | 20080916 | | |
| PRAI | US 1992-935565 | A2 | 19920824 | | |
| | US 1993-121169 | A2 | 19930914 | | |
| | US 1994-344157 | A3 | 19941122 | | |
| | US 1995-417913 | A3 | 19950406 | | |
| | US 1995-419044 | A3 | 19950410 | | |
| | US 1997-837812 | A1 | 19970422 | | |
| | US 2000-666668 | A1 | 20000920 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A polymeric compn. capable of releasing nitric oxide comprises polymer and a nitric oxide-releasing functional group bound to the polymer for treatment of biol. disorders. The compns. can be used as and/or incorporated into implants, injectables, condoms, prosthesis coatings, patches, and the like for use in a wide variety of medical applications (no data). For example, poly(aminostyrene) in acetonitrile was placed under 5 atm nitric oxide to give a cream-colored polymer of which one-third of the amino side chains became attached to N2O2 groups.

IT **10102-43-9DP**, Nitric oxide, polymer conjugates
(polymer-bound nitric oxide/nucleophile adducts for treating biol. disorders)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IT **9002-88-4D**, Polyethylene, nitric oxide conjugates
(polymer-bound nitric oxide/nucleophile adducts for treating biol. disorders)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

$H_2C{=}CH_2$

IC ICM C08K005-22
ICS A01N033-26; A61K031-785; C08F008-30
INCL 525377000
CC 63-6 (Pharmaceuticals)
IT 9002-98-6DP, Polyethylenimine, nitric oxide conjugates 9060-90-6DP, Poly(aminostyrene), nitric oxide conjugates 10102-43-9DP, Nitric oxide, polymer conjugates 26780-50-7DP, Glycolide-lactide copolymer, nitric oxide conjugates
(polymer-bound nitric oxide/nucleophile adducts for treating biol. disorders)
IT 9002-84-0D, Polytetrafluoroethylene, nitric oxide conjugates 9002-86-2D, Polyvinyl chloride, nitric oxide conjugates 9002-88-4D, Polyethylene, nitric oxide conjugates 9003-07-0D, Polypropylene, nitric oxide conjugates 9003-53-6D, Polystyrene, nitric oxide conjugates 24937-79-9D, Polyvinylidene difluoride, nitric oxide conjugates
(polymer-bound nitric oxide/nucleophile adducts for treating biol. disorders)
OSC.G 54 THERE ARE 54 CAPLUS RECORDS THAT CITE THIS RECORD (61 CITINGS)
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L78 ANSWER 4 OF 14 HCA COPYRIGHT 2010 ACS on STN
AN 121:136789 HCA Full-text
OREF 121:24707a,24710a
TI Measurement of intraparticle effective diffusion coefficient of NO in metal ion-exchanged zeolites by analysis of breakthrough curves
AU Zhang, Wen Xiang; Yahiro, Hidenori; Izumi, Jun; Iwamoto, Masakazu
CS Catalysis Res. Cent., Hokkaido Univ., Sapporo, 060, Japan
SO Nippon Kagaku Kaishi (1994), (8), 748-51
CODEN: NKAKB8; ISSN: 0369-4577
DT Journal
LA Japanese
AB Breakthrough curves of NO adsorption on various metal ion- exchanged zeolites have been employed to evaluate the intraparticle effective diffusion coeff. (Di). The Di was 0.7 + 10-3-29 + 10-3 cm2/s and was charged with zeolite structures, metal ions exchanged, and adsorption temp. On MFI zeolite, Di was dependent on the radius of metal ion, and a max. Di was obsd. around 0.09 nm of the radius. With Cu-ZSM-5 and Agmordenite, the max. Di was obsd. around 250 K, while the Di of Comordenite was not varied with the adsorption temp.
IT 10102-43-9P, Nitrogen oxide (NO), preparation
(adsorption of, on metal ion-exchanged zeolites)
RN 10102-43-9 HCA

CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   48-1 (Unit Operations and Processes)
ST   diffusion nitrogen oxide ion exchanged zeolite;
     metal ion exchanged zeolite adsorption;
     intraparticle effective diffusion nitrogen oxide; breakthrough curve
     adsorption nitrogen oxide
IT   Adsorption
        (of nitrogen oxide, in metal ion-exchanged
        zeolites, measurement of intraparticle effective diffusion in)
IT   10102-43-9P, Nitrogen oxide (NO), preparation
        (adsorption of, on metal ion-exchanged
        zeolites)
OSC.G   1     THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L78  ANSWER 5 OF 14  HCA  COPYRIGHT 2010 ACS on STN
AN   117:99411  HCA  Full-text
OREF 117:17131a,17134a
TI   Nitrogen oxides generation method for recovered nitric acid by
     electrolysis.  An action plan for reduction of low-level-liquid-waste
     in processing plant
AU   Suzuki, Kaunori
CS   Oarai Nucl. Res. Cent., JGC Corp., Japan
SO   Kyoto Daigaku Genshiro Jikkensho, [Tech. Rep.] (1991),
     KURRI-TR-361, 19-26
     CODEN: KDGHDH; ISSN: 0287-9808
DT   Report
LA   Japanese
AB   A specified concn. HNO3 was fed to an electrolytic cell and qual. and quant. anal. of the gas formed were carried out.  The main test parameters were HNO3 concn. (1-12 mol/L), electrode material (Pt, graphite), c.d. (0.01-0.05 A/cm2), presence or absence of diaphragm ( cationic exchange membrane) and flow rate of HNO3 in the electrolytic cell.  The detns. of NO and NO2 were carried out by using a NOx analyzer.  The total NOx was detd. by ozone oxidn./alkali absorption/neutralization titrn., and H2 and N2O were detd. by gas chromatog.  The current efficiency (%) for the formation of NOx was calcd. by the equation: [amt. of NO2 (mol/h) produced 26.8 (A-h/mol) + amt. of NO (mol/h) produced 80.4 (A-h/mol) + amt. of NO (mol/h) produced 80.4 (A-h/mol)] + 100/electricity (A) supplied.  At high HNO3 concn. a mixt. of NO and NO2 was produced.  At medium HNO3 concn. the main product was H2 gas when the HNO3 concn. was ≤6 mol/L and Pt cathode was used whereas a mixt. of NO and N2O was produced when the HNO3 concn. was 2-4 mol/L and graphite electrode was used, however when the HNO3 concn. was ≤1 mol/L H2 was produced.  The current efficiency for high concn. HNO3 electrolysis was ≥90% so NOx was formed effectively.  When a diaphragm-contg. electrolytic cell was used the prodn. efficiency of NOx did not drop even when the flow rate

was small and the prodn. efficiency was ≥90% whereas in an electrolytic cell without a diaphragm, the same efficiency as diaphragm cell was not obtained unless the flow rate (linear velocity) was large.

IT 10102-43-9P, Nitrogen monooxide, preparation
(prodn. of, from recovered nitric acid by electrolysis, radioactive waste redn. at reprocessing facility in relation to)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 71-11 (Nuclear Technology)
Section cross-reference(s): 72

IT Cation exchangers
(membranes, for electrolytic cells for nitric acid recovery, radioactive waste redn. issues in relation to)

IT 1333-74-0P, Hydrogen, preparation 10102-43-9P, Nitrogen monooxide, preparation 10102-44-0P, Nitrogen dioxide, preparation 11104-93-1P, Nitrogen oxide, preparation
(prodn. of, from recovered nitric acid by electrolysis, radioactive waste redn. at reprocessing facility in relation to)

L78 ANSWER 6 OF 14 HCA COPYRIGHT 2010 ACS on STN

AN 115:60588 HCA Full-text

OREF 115:10279a,10282a

TI Approach to De-NOx-ing photocatalysis. Photocatalytic decomposition of NO on $Cu^+/SiO_2$ catalyst prepared via ion-exchange method

AU Anpo, Masakazu; Nomura, Takaiki; Kitao, Teijiro; Giamello, Elio; Che, Michel; Fox, Marye Anne

CS Coll. Eng., Univ. Osaka Prefect., Sakai, 591, Japan

SO Chemistry Letters (1991), (5), 889-92
CODEN: CMLTAG; ISSN: 0366-7022

DT Journal

LA English

AB $Cu^{2+}$ ions supported onto $SiO_2$ ($Cu^{2+}/SiO_2$) prepd. by an ion- exchange method are reduced to $Cu^+$ ions when the $Cu^{2+}/SiO_2$ sample is evacuated >573 K. $Cu^+/SiO_2$ catalyst decomps. NO photocatalytically and stoichiometrically at 275 K. The excited state of the $Cu^+$ ions plays a significant role in the photocatalytic decompn. of NO on the $Cu^+/SiO_2$ catalyst.

IT 10102-43-9P, Nitrogen monoxide, reactions
(photocatalytic decompn. of, on copper ion(1+)-silica catalyst prepd. by ion-exchange method)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

CC   74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
ST   photocatalyst copper ion exchange silica; nitrogen
     oxide decompn photocatalyst copper ion; photodecompn nitrogen oxide
     copper ion catalyst
IT   Photolysis catalysts
        (copper ion(1+)/silica, for nitrogen monoxide decompn., prepd. by
        ion-exchange method)
IT   Photolysis
        (of nitrogen monoxide on copper ion/silica catalyst prepd. by
        ion-exchange method)
IT   7631-86-9P, Silica, uses and miscellaneous
        (photocatalyst contg. copper(1+) on, prepd. by ion-
        exchange, for decompn. of nitrogen monoxide)
IT   17493-86-6P, Copper ion(1+), uses and miscellaneous
        (photocatalyst from silicon dioxide and, prepd. by ion-
        exchange, for nitrogen monoxide decompn.)
IT   10102-43-9P, Nitrogen monoxide, reactions
        (photocatalytic decompn. of, on copper ion(1+)-silica catalyst
        prepd. by ion-exchange method)
OSC.G   8     THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

L78  ANSWER 7 OF 14  HCA  COPYRIGHT 2010 ACS on STN
AN   114:48639  HCA  Full-text
OREF 114:8317a,8320a
TI   Rates and mechanisms of nitrogen dioxide removal from indoor air by
     residential materials
AU   Spicer, C. W.; Coutant, R. W.; Ward, G. F.; Joseph, D. W.; Gaynor, A.
     J.; Billick, I. H.
CS   Battelle Mem. Inst., Columbus, OH, 43201, USA
SO   Environment International (1989), 15(1-6), 643-54
     CODEN: ENVIDV; ISSN: 0160-4120
DT   Journal
LA   English
AB   The relative efficiencies for NO2 removal from indoor air by a large no. of
     materials are presented with a discussion of the factors that influence the
     removal process.  The reaction with indoor surfaces represents a significant
     sink for NO2, and that these reactions are effecting a considerable degree
     of control over indoor NO2 levels.  It seems likely that this control could
     be enhanced by judicious selection of furnishings and construction
     materials.
IT   9002-88-4, Polyethylene
        (air pollution by, indoor, residential building and furnishing
        materials in mitigation of)
RN   9002-88-4  HCA
CN   Ethene, homopolymer  (CA INDEX NAME)

     CM   1

     CRN  74-85-1

CMF C2 H4

$H_2C{=}CH_2$

IT 10102-43-9P, Nitric oxide, preparation
(formation of, in nitrogen dioxide removal from indoor air by residential building and furnishing materials)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

$N{=}O$

CC 59-2 (Air Pollution and Industrial Hygiene)
Section cross-reference(s): 40, 58
IT 9002-88-4, Polyethylene 10102-44-0, Nitrogen dioxide, biological studies
(air pollution by, indoor, residential building and furnishing materials in mitigation of)
IT 10102-43-9P, Nitric oxide, preparation
(formation of, in nitrogen dioxide removal from indoor air by residential building and furnishing materials)
OSC.G 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

L78 ANSWER 8 OF 14 HCA COPYRIGHT 2010 ACS on STN
AN 110:14873 HCA Full-text
OREF 110:2487a,2490a
TI Experiments on acid digestion and gas-purification processes
AU Matteman, J. L.; De Niet, J.; Boekschoten, H. J. C.
CS Res. Dev. Div., N. V. Kema, Arnhem, 6800 ET, Neth.
SO Kema Scientific & Technical Reports (1988), 6(6), 133-44
CODEN: KESRED; ISSN: 0167-8590
DT Journal
LA English
AB Research carried out on acid digestion and gas purifn. started with a selection of H2SO4 and as the chems. to be used. The design parameters for low-level waste were then detd. in a pilot plant. The digestion of the waste in the pilot plant resulted in the formation of SO2 and NOx. These compds. were converted back to the corresponding acids in a gas-purifn. system consisting of a series of contact columns. Reconversion of H2SO4 could be done in a relatively small column in which the SO2 formed during the digestion was oxidized by HNO3. The HNO3 was recovered by absorbing NOx into water in three columns operating at room temp. Both air and (preferably) H2O2 were successfully used as oxidants during absorption. Experience indicated that an acid-digestion plant can be run in a safe and reliable way in spite of the fact that aggressive chems. have to be used. The burdening of the environment with NOx or SO2 is limited. The pilot

plant could be run by 1 person, owing to the installation of a process computer.

IT 9002-88-4, Polyethylene
(acid digestion of radioactive low-level waste contg., gas purifn. in relation to)

RN 9002-88-4 HCA

CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

$H_2C{=}CH_2$

IT 10102-43-9P, Nitrogen monoxide, preparation
(formation of, in acid digestion of radioactive low-level waste contg. org. materials)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

$N{=}O$

CC 71-11 (Nuclear Technology)

IT 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9004-34-6, Cellulose, reactions
(acid digestion of radioactive low-level waste contg., gas purifn. in relation to)

IT 124-38-9P, Carbon dioxide, preparation 630-08-0P, Carbon monoxide, preparation 7727-37-9P, Nitrogen, preparation 7732-18-5P, Water, vapor 7782-44-7P, Oxygen, preparation 10102-43-9P, Nitrogen monoxide, preparation 10102-44-0P, Nitrogen dioxide, preparation
(formation of, in acid digestion of radioactive low-level waste contg. org. materials)

L78 ANSWER 9 OF 14 HCA COPYRIGHT 2010 ACS on STN

AN 107:239285 HCA Full-text

OREF 107:38439a,38442a

TI Recovery of hydroxylamine or its salts from wastewaters

IN Fuchs, Hugo; Thomas, Erwin; Weiss, Franz Josef; Ritz, Josef

PA BASF A.-G., Fed. Rep. Ger.

SO Ger. Offen., 3 pp.
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 3607998 | A1 | 19870917 | DE 1986-3607998 | 19860311 |
| | US 4725360 | A | 19880216 | US 1987-22875 | 19870306 |
| | EP 236993 | A2 | 19870916 | EP 1987-103283 | 19870307 |
| | EP 236993 | A3 | 19880504 | | |
| | JP 62213893 | A | 19870919 | JP 1987-52250 | 19870309 |
| PRAI | DE 1986-3607998 | A | 19860311 | | |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The title process is carried out by passing the wastewaters over a strongly acidic ion-exchange resin, and then contacting the ion-exchange resin with aq., 5-15-wt.% H2SO4 to obtain an aq. H2SO4 soln. of (NH2OH)2·H2SO4. This method prevents problems in the treatment of wastewaters in the clarification area, and eliminates use of addnl. chems. A 50-mm diam., 1.5-m high glass tube was packed with a crosslinked, sulfonic acid group-contg. polystyrene ion-exchange resin that was then activated with 5-mol% H2SO4. Next, 116 L wastewater from NH2OH manuf., contg. NH3OH 1.45, H2SO4 0.2, and (NH4)2SO4 0.5 g/L was passed over the resin at 2500 mL/h. Thereafter, the resin was treated with 6500 mL 10-mol% H2SO4, and washed with .apprx.3000 mL water, to obtain 9550 mL (NH2OH)2·H2SO4 soln. contg. NH2OH 19.45, H2SO4 48.06, and (NH4)2SO4 6.7 g/L. The soln. was used in the synthesis of NH2OH.

IT 10102-43-9P, Nitrogen monoxide, reactions
(hydrogenation of, catalytic, for hydroxylammonium sulfate prepn., wastewater treatment in)

RN 10102-43-9 HCA

CN Nitrogen oxide (NO) (CA INDEX NAME)

IC ICM C02F001-42
ICS C01B021-14

CC 49-3 (Industrial Inorganic Chemicals)
Section cross-reference(s): 61

ST hydroxylamine recovery wastewater ion exchange;
hydroxylammonium sulfate prepn ion exchange;
sulfonated crosslinked polystyrene ion exchange

IT Ion exchangers
(acidic, in hydroxylamine and hydroxylammonium salt recovery from wastewater)

IT Wastewater treatment
(ion exchange, hydroxylamine and hydroxylamine salt recovery in)

IT 10102-43-9P, Nitrogen monoxide, reactions
(hydrogenation of, catalytic, for hydroxylammonium sulfate prepn., wastewater treatment in)

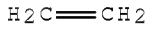
IT 9003-53-6D, Polystyrene, crosslinked, sulfonated
(ion-exchange resin, in hydroxylamine and hydroxylammonium salt recovery from wastewaters)

OSC.G 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L78 ANSWER 10 OF 14 HCA COPYRIGHT 2010 ACS on STN
AN 105:122681 HCA Full-text
OREF 105:19711a,19714a
TI Development and active demonstration of acid digestion of
plutonium-bearing combustible solid waste
AU Wieczorek, H.; Oser, B.
CS INE, Fed. Rep. Ger.
SO KFK-Nachrichten (1986), 18(2), 77-82
CODEN: KFKNAW; ISSN: 0340-756X
DT Journal
LA German
AB With the wet-ashing (acid digestion) of .apprx.800 kg of waste and the recovery of 6.3 kg of Pu in a semi-industrial facility, the suitability of the process and the plant components for the treatment of combustible high Pu-contg. wastes is shown. With a suitable reactor constructed for this process, high exchange-rates for the waste and Pu were accomplished. The official requirements were met by the attained decontamination factors for purified off gas of 1010 and for the liq. secondary waste of >106. For 1 kg of wet-ashed waste, 2.3 kg of secondary waste were obtained.
IT 9002-88-4
(acid digestion of combustible solid waste contg.)
RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1
CMF C2 H4



IT 10102-43-9P, preparation
(formation of, in wet-ashing of combustible plutonium-solid wastes)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

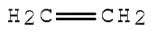
CC 71-11 (Nuclear Technology)
IT 7782-50-5D, compds. 9002-86-2 9002-88-4 7440-07-5, uses
and miscellaneous
(acid digestion of combustible solid waste contg.)
IT 7446-09-5P, preparation 7647-01-0P, preparation 10102-43-9P
, preparation

(formation of, in wet-ashing of combustible plutonium-solid wastes)
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L78 ANSWER 11 OF 14 HCA COPYRIGHT 2010 ACS on STN
AN 105:98084 HCA Full-text
OREF 105:15875a,15878a
TI Derivatization reactions on oxidized polyolefins
AU Carlsson, D. J.; Brousseau, R.; Zhang, Can; Wiles, D. M.
CS Div. Chem., Natl. Res. Counc. Canada, Ottawa, ON, K1A 0R9, Can.
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1986), 27(2), 97-8
CODEN: ACPPAY; ISSN: 0032-3934
DT Journal
LA English
AB Polypropylene and LDPE could be smoothly oxidized by α-irradn. The hydroperoxide groups resulting from this oxidn. were extremely reactive to several gaseous reagents at room temp. and could be converted to fluorides, hydrosulfates, alkyl peroxides, chloroformates, and nitrates.
IT 9002-88-4DP, oxidized, derivs. 10102-43-9DP, reaction products with oxidized polypropylene and LDPE
(prepn. and characterization of)
RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1
CMF C2 H4



RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

CC 35-8 (Chemistry of Synthetic High Polymers)
IT 75-44-5DP, reaction products with oxidized polypropylene and LDPE
334-88-3DP, reaction products with oxidized polypropylene and LDPE
7446-09-5DP, reaction products with oxidized polypropylene and LDPE
7783-60-0DP, reaction products with oxidized polypropylene and LDPE
9002-88-4DP, oxidized, derivs. 9003-07-0DP, oxidized, derivs. 10102-43-9DP, reaction products with oxidized polypropylene and LDPE
(prepn. and characterization of)

L78 ANSWER 12 OF 14 HCA COPYRIGHT 2010 ACS on STN
AN 98:42709 HCA Full-text
OREF 98:6475a,6478a
TI Formation of radiolytically induced gases from solid products of low-level and intermediate-level radioactive wastes
AU Schorr, W.; Duschner, H.; Starke, K.
CS Kernchem. Fachber. Phys. Chem., Philips-Univ. Marburg, Marburg/Lahn, D-3550, Fed. Rep. Ger.
SO Nukleare Entsorgung (1981), 1, 263-75
CODEN: NUKEDA; ISSN: 0723-0893
DT Journal
LA German
AB In the org. material studied, the principal components of the radiolytic gases produced are formed by radiolytically induced chain reactions. Thus H is formed in bitumen and polyethylene. The rate of formation is slow and practically independent of dose rate but linearly dependent on total dose. This relation holds over the dose range expected from fission products whose sp. radioactivity 2 yr after removal from the reactor is 0.1-1 Ci/L. Only small amts. of addnl. gas are formed by admixt. of simulated wastes. The prodn. rate of H in pure matrix remains unaltered. Because O is adsorbed onto the surface of the org. material, the atm. surrounding the waste containers strongly depends on the design of the storage chamber. In contrast to the org. matrixes gas formation in concrete is influenced by such admixts. The detn. of the qual. and quant. compn. of multicomponent gas mixts. was carried out using mass spectroscopy. The complex mass spectra obtained are subjected to math. anal. followed by statistical methods of error redn.
IT 10102-43-9P, preparation
(formation of, from irradiated solid products of low-level and intermediate-level radioactive waste)
RN 10102-43-9 HCA
CN Nitrogen oxide (NO) (CA INDEX NAME)

N=O

IT 9002-88-4
(hydrogen formation by radiolysis of radioactive waste contg.)
RN 9002-88-4 HCA
CN Ethene, homopolymer (CA INDEX NAME)

CM 1

CRN 74-85-1
CMF C2 H4

H2C=CH2

CC   71-11 (Nuclear Technology)
Section cross-reference(s): 58
IT   Cement
Ion exchangers
Surfactants
(formation of gases from radioactive wastes contg.)
IT   74-89-5P, preparation   75-50-3P, preparation   630-08-0P, preparation
7782-44-7P, preparation 10102-43-9P, preparation
10102-44-0P, preparation
(formation of, from irradiated solid products of low-level and intermediate-level radioactive waste)
IT   9002-88-4
(hydrogen formation by radiolysis of radioactive waste contg.)
OSC.G   2   THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

L78  ANSWER 13 OF 14  HCA  COPYRIGHT 2010 ACS on STN
AN   87:185330  HCA  Full-text
OREF 87:29289a,29292a
TI   Measurement of toxic substances in the combustion products of certain construction plastics
AU   Oksanen, Pekka; Kallonen, Raija
CS   Finland
SO   Palontorjuntatekniikka (1975), (2), 48-50
CODEN: PALODT; ISSN: 0031-0476
DT   Journal
LA   Finnish
AB   The rates of formation of CO, HCN, HCl, NO, and $NO_2$ in the combustion of various plastics were detd. in a smoke density chamber by subjecting test samples to heat radiation of 2.5W/$cm^2$. Most plastics were less hazardous than pine wood during combustion. Low-density polyethylene [9002-88-4] had the highest rate of formation of CO, whereas formation of HCl was fastest in PVC [9002-86-2]. The highest toxicity indexes belonged to a phenolic foam (due to CO), a polyurethane foam (due mainly to HCN and $NO_2$), and PVC (due mainly to HCl).
IT   9002-88-4
(combustion products of, toxicity of)
RN   9002-88-4  HCA
CN   Ethene, homopolymer  (CA INDEX NAME)

CM   1

CRN  74-85-1
CMF  $C_2 H_4$

$H_2C{=}CH_2$

IT   10102-43-9P, preparation
(formation of, in combustion of plastic building materials)

RN   10102-43-9  HCA
CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   36-4 (Plastics Manufacture and Processing)
IT   9002-86-2 9002-88-4
        (combustion products of, toxicity of)
IT   74-90-8P, preparation   630-08-0P, preparation   7647-01-0P,
     preparation 10102-43-9P, preparation   10102-44-0P,
     preparation
        (formation of, in combustion of plastic building materials)

L78  ANSWER 14 OF 14  HCA  COPYRIGHT 2010 ACS on STN
AN   57:84783  HCA  Full-text
OREF 57:16985b-d
TI   Use of ion-exchanging resins for purification of
     nonvolatile aliphatic acids by paper chromatography
AU   Fateeva, M. V.
SO   Biokhimiya (Moscow) (1962), 27, 32-7
     CODEN: BIOHAO; ISSN: 0320-9725
DT   Journal
LA   Unavailable
AB   An acid-contg. soln. (100 ml.) was passed through a cationite SDV-3 (50 ml./hr.) until a blue color developed in the bromocresol green test. The eluate was immediately passed through the anionite N-O column and the absence of sugar was checked. To remove all the acids (checked by titration with 0.1N HCl against methyl red) and regenerate the column, 100 ml. of 3% NaOH was passed through it. Then the eluate was immediately passed through another column contg. SDV-3. Free acids were collected and examd. chromatographically. Good results were obtained with mixts. contg. sugars, alcs., amino acids, and inorg. salts.
IT   10102-43-9P, N-O
        (in aliphatic-acid purification)
RN   10102-43-9  HCA
CN   Nitrogen oxide (NO)  (CA INDEX NAME)

CC   55 (Biochemical Methods)
IT   Ion exchange
        (acid purification by)
IT   Acids
        (catalysts in polymerization, purification of aliphatic,
        ion-exchanging resins in)
IT   10102-43-9P, N-O   12778-16-4P, SDV 3

(in aliphatic-acid purification)